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QUALITY ASSURANCE REVIEW

FOR SAMPLES ASSOCIATED WITH THE

GENERAL ELECTRIC COMPANY HUDSON RIVER PCBs SITE

PHASE 2 REMEDIAL ACTION MONITORING PROGRAM

P2RAMP-PACE-FM-111

July 17, 2018

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Executive Summary

This quality assurance (QA) review (# P2RAMP-PACE-FM-111) was performed on polychlorinated biphenyl (PCB) analytical data in Sample Delivery Groups (SDGs) 40148598, 40151542, 40151619, and 40157940. The PCB data were generated in accordance with standard operating procedures (SOPs) for homogenization and preparation of tissue samples (SOP S-GB-L-009-Rev.01), extraction by SW-846 Method 3541 and determination of percent lipids (SOP S-GB-O-068-Rev.01), and the analysis for PCB Aroclors using SW-846 Method 8082A (SOP S-GB-O-067-Rev.01) included as Attachments 1, 2, and 3, respectively, of the Hudson River Phase 2 Remedial Action Monitoring Program 2017 Corrective Action Memorandum No. 15 (February 2018) to the Hudson River PCBs Superfund Site Phase 2 Remedial Action Monitoring Quality Assurance Project Plan (Phase 2 RAM QAPP, May 2012). These 43 samples were collected on April 18, June 12 and 13, and August 28, 2017, as part of the Hudson River PCBs Site Phase 2 Remedial Action Monitoring Program and were analyzed by Pace Analytical Services, LLC (Pace), in Green Bay, Wisconsin.

All samples included in SDGs 40148598, 40151542, 40151619, and 40157940 have been validated and are identified on Table 1 of this QA review. Environmental Standards, Inc. based the validation on an evaluation of the deliverable provided by the laboratory for SDGs 40148598, 40151542, 40151619, and 40157940.

The data quality for the PCB results was acceptable; however, the following qualifications were made:

- All PCB results reported at concentrations between the sample-specific method detection limit and reporting limit (adjusted for dilution factors and sample weight) should be considered estimated.

- The reported positive results for total PCBs summed from estimated individual Aroclor concentrations should be considered estimated.

This QA review identified a few deliverable and procedural issues, which did not result in qualification of data.

Introduction

This quality assurance (QA) review (# P2RAMP-PACE-FM-111) is based upon an examination of data generated from the 43 fish samples that were collected on April 18, June 12 and 13, and August 28, 2017, as part of the Hudson River PCBs Site Phase 2 Remedial Action Monitoring Program (RAMP).

This QA review was performed on polychlorinated biphenyl (PCB) analytical data in Sample Delivery Groups (SDGs) 40148598, 40151542, 40151619, and 40157940. The PCB data were generated in accordance with standard operating procedures (SOPs) for homogenization and preparation of tissue samples (SOP S-GB-L-009-Rev.01), extraction by SW-846 Method 3541 and determination of percent lipids (SOP S-GB-O-068-Rev.01), and the analysis for PCB Aroclors using SW-846 Method 8082A (SOP S-GB-O-067-Rev.01) included as Attachments 1, 2, and 3, respectively, of the Hudson River Phase 2 Remedial Action Monitoring Program 2017 Corrective Action Memorandum No. 15 (February 2018) to the Hudson River PCBs Superfund Site Phase 2 Remedial Action Monitoring Quality Assurance Project Plan (Phase 2 RAM QAPP, May 2012). These 35 samples were collected on April 18, June 12 and 13, and August 28, 2017, as part of the Hudson River PCBs Site Phase 2 RAMP and were analyzed by Pace Analytical Services, LLC (Pace), in Green Bay, Wisconsin.

All samples included in SDGs 40148598, 40151542, 40151619, and 40157940 have been validated and are identified on Table 1 of this QA review. Table 1 presents the field sample number, laboratory sample number, SDG number, collection date, and parameter analyzed and reviewed for each sample. Environmental Standards, Inc. (Environmental Standards), based the validation on an evaluation of the deliverable provided by the laboratory for SDGs 40148598, 40151542, 40151619, and 40157940.

This critical QA review identifies data quality issues for specific samples and specific evaluation criteria. The data qualifications allow the data end-user to best understand the usability of the analysis results. Data not qualified in this report should be considered valid based on the QC criteria that have been reviewed. The data deliverables were examined for compliance with the procedural and documentation requirements as stipulated in the Phase 2 RAM QAPP.

Data were examined to determine the usability of the analytical results. The reported analytical results are presented on the validated data summary tables in Section 2, which have been generated from the General Electric Company (GE) Hudson River database. The “Lab MDL” (*i.e.*, the method detection limit [MDL]), “Lab RL” (*i.e.*, the reporting limit [RL]), “Lab Result Value,” and “Lab Qualifier” fields presented on the validated data summary tables were derived directly from the laboratory-provided electronic data deliverable (EDD) that was used to populate the GE Hudson River database with the analytical results. Errors in the “Lab MDL,” “Lab RL,” and “Lab Result Value” noted during validation have been corrected and the corrections are reflected in the “Validated MDL,” “Validated RL,” and “Validated Result Value” fields, respectively, on the validated data summary tables. Verification qualifier codes were placed in the “Ver Qualifier” field during the electronic data verification (EDV) process and are also presented on the validated data summary tables. Validation qualifier codes have been placed in the “Val Qualifier” fields on the data tables to enable the data user to quickly assess the qualitative and/or quantitative reliability of a result based on the criteria evaluated during this QA review. In addition, the “Final Result Qualifier” field has been updated to reflect the validation qualifier codes that override the “Ver Qualifier.” Finally, the “Val Notes” field has been populated with codes that indicate the reason for the final result qualifiers. Definitions of the laboratory qualifier codes and verification/validation/final result qualifier codes are presented on the data summary tables.

Section 3 of this report presents the Electronic Data Verification Reports associated with the validated samples. Section 4 of this report presents the Data Support Documentation for this QA review. Section 5 of this report presents copies of the Case Narratives and Chain-of-Custody (COC) Records. Section 6 of this report presents copies of Project Correspondence.

TABLE 1

SUMMARY OF SAMPLES REVIEWED

General Electric Sample Number	Laboratory Sample Number	SDG	Date Sample Collected	Parameter Examined
TZ1-170418-01-STB-05	40148598001	40148598	4/18/17	PCB
TZ1-170418-01-STB-04	40148598002	40148598	4/18/17	PCB
TZ1-170418-01-STB-03	40148598003	40148598	4/18/17	PCB
TZ1-170418-01-STB-02	40148598004	40148598	4/18/17	PCB
TZ1-170418-01-STB-01	40148598005	40148598	4/18/17	PCB
TZ1-170418-01-STB-01MS (Matrix Spike)	1653812	40148598	4/18/17	PCB
TZ1-170418-01-STB-01DUP (Laboratory Duplicate)	1653813	40148598	4/18/17	PCB
TD4-170612-01-SMB-01	40151542001	40151542	6/12/17	PCB
TD3-170612-01-SMB-05	40151542002	40151542	6/12/17	PCB
TD3-170612-01-SMB-04	40151542003	40151542	6/12/17	PCB
TD3-170612-01-SMB-03	40151542004	40151542	6/12/17	PCB
TD3-170612-01-SMB-03MS (Matrix Spike)	1652258	40151542	6/12/17	PCB
TD3-170612-01-SMB-03DUP (Laboratory Duplicate)	1652259	40151542	6/12/17	PCB
TD3-170612-01-SMB-02	40151542005	40151542	6/12/17	PCB
TD3-170612-01-SMB-01	40151542006	40151542	6/12/17	PCB
SW1-170613-01-YP-05	40151619001	40151619	6/13/17	PCB
SW1-170613-01-YP-04	40151619002	40151619	6/13/17	PCB
SW1-170613-01-YP-04MS (Matrix Spike)	1662165	40151619	6/13/17	PCB
SW1-170613-01-YP-04DUP (Laboratory Duplicate)	1662166	40151619	6/13/17	PCB
SW1-170613-01-YP-03	40151619003	40151619	6/13/17	PCB
SW1-170613-01-YP-02	40151619004	40151619	6/13/17	PCB
TD5-170828-01-PKSD-02	40157940001	40157940	8/28/17	PCB
TD3-170828-01-PKSD-05	40157940002	40157940	8/28/17	PCB
TD3-170828-01-PKSD-04	40157940003	40157940	8/28/17	PCB
TD3-170828-01-PKSD-03	40157940004	40157940	8/28/17	PCB
TD3-170828-01-PKSD-02	40157940005	40157940	8/28/17	PCB

TABLE 1 (Cont.)

General Electric Sample Number	Laboratory Sample Number	SDG	Date Sample Collected	Parameter Examined
TD2-170828-01-PKSD-02	40157940006	40157940	8/28/17	PCB
TD2-170828-01-PKSD-01	40157940007	40157940	8/28/17	PCB
TD1-170828-01-PKSD-05	40157940008	40157940	8/28/17	PCB
TD1-170828-01-PKSD-04	40157940009	40157940	8/28/17	PCB
TD1-170828-01-PKSD-03	40157940010	40157940	8/28/17	PCB
TD1-170828-01-PKSD-02	40157940011	40157940	8/28/17	PCB
ND2-170828-01-PKSD-04	40157940012	40157940	8/28/17	PCB
ND2-170828-01-PKSD-03	40157940013	40157940	8/28/17	PCB
ND2-170828-01-PKSD-02	40157940014	40157940	8/28/17	PCB
ND2-170828-01-GOSH-02	40157940015	40157940	8/28/17	PCB
ND2-170828-01-GOSH-02MS (Matrix Spike)	1681430	40157940	8/28/17	PCB
ND2-170828-01-GOSH-02DUP (Laboratory Duplicate)	1681911	40157940	8/28/17	PCB
ND1-170828-01-PKSD-06	40157940016	40157940	8/28/17	PCB
ND1-170828-01-PKSD-05	40157940017	40157940	8/28/17	PCB
ND1-170828-01-PKSD-03	40157940018	40157940	8/28/17	PCB
ND1-170828-01-PKSD-02	40157940019	40157940	8/28/17	PCB
ND1-170828-01-PKSD-01	40157940020	40157940	8/28/17	PCB

NOTE:

PCB - Homogenization and preparation of tissue samples (SOP S-GB-L-009-Rev.01), extraction by SW-846 Method 3541 and determination of percent lipids (SOP S-GB-O-068-Rev.01), and the analysis for PCB Aroclors using SW-846 Method 8082A (SOP S-GB-O-067-Rev.01). (43 analyses)

Section 1 Quality Assurance Review

The organic analyses of 43 fish samples (including quality control [QC] samples) collected on April 18, June 12 and 13, and August 28, 2017, as part of the Hudson River PCBs Site Phase 2 RAMP, were performed by Pace in Green Bay, Wisconsin.

The samples included in this QA review were included in SDGs 40148598, 40151542, 40151619, and 40157940. All samples were analyzed by the SOPs for homogenization and preparation of tissue samples (SOP S-GB-L-009-Rev.01), extraction by SW-846 Method 3541 and determination of percent lipids (SOP S-GB-O-068-Rev.01), and the analysis for PCB Aroclors using SW-846 Method 8082A (SOP S-GB-O-067-Rev.01) included as Attachments 1, 2, and 3, respectively, of the CAM 15 (February 2018) to the Phase 2 RAM QAPP. The samples reviewed are identified on Table 1.

Section 3 of this QA review presents the EDV reports for the SDGs included in this QA review. An EDV report is the output of the data verification module of the database program and utilizes the information reported in the laboratory EDDs and the field database. The specific measures evaluated during verification and the associated criteria are addressed in the Phase 2 RAM QAPP (Section 12.2) and include the measures specified below:

- Holding times
- Accuracy (by evaluating laboratory control sample [LCS] and matrix spike [MS] recoveries)
- Precision (by evaluating laboratory duplicate results)
- Blank contamination (laboratory method blanks)
- Surrogate compound recoveries

The EDV reports in Section 3 include the measures specified above that required qualification. Verification measures for which qualification was not required using EDV are not presented in the EDV reports in Section 3. Qualification of data based on validation supercedes qualification based on EDV when there is a discrepancy between the two methods of qualification.

The data validation has been performed in accordance with the Data Validation SOP for Aroclor PCB Data (DVAROCLOR; Appendix 10.5-6 of the Phase 2 RAM QAPP). The findings offered in this QA review are based upon an evaluation of the complete data package for the following items:

- Sample holding times
- Initial calibration results
- Method blank analysis results
- LCS results
- Laboratory duplicate sample precision
- Qualitative identification
- Sample condition upon laboratory receipt
- Continuing calibration verification results
- MS recoveries
- Surrogate recoveries
- Appropriate quantitation of results

The data reviewer has edited the laboratory-reported data and QC summary forms based on findings cited in this QA review. Furthermore, the data reviewer has included copies of all relevant raw data, QC forms, and other documentation needed to support these edits in the Data Support Documentation (Section 4) of this QA review.

A. Deliverable Review

1. As historically reported, on the PCB Analysis Data Sheets (Form 1's), the reported concentrations of Aroclors 1221, 1248, 1254, and/or 1260 were reported to provide a more accurate quantitation of an altered Aroclor pattern. The patterns for these specific Aroclors were not actually observed in the samples. Many of the quantitation peaks for each of the target Aroclors are present in the majority of sample chromatograms such that each target Aroclor often quantitates to a concentration above the MDL. The Aroclors to be quantitated in each sample were selected by laboratory personnel to best match the total PCBs result that historically would have been obtained using the Pace Schenectady modified Green Bay Method (based on PCB patterns similar to samples that were analyzed by both SW-846 Method 8082A and the modified Green Bay Method). The data users use only the total PCBs results obtained from the SW-846 Method 8082A analysis and do not use the individual Aroclor results. There is no impact on data usability for this project due to this issue.

2. As stated in Deliverable Review issue #1, the majority of quantitation peaks for many target Aroclors are present in the sample chromatograms. Aroclors 1221, 1248, 1254, and/or 1260 were reported in the unspiked parent samples in SDGs 40148598, 40151542, 40151619, and 40157940 as the best Aroclor matches; however, Aroclor 1242 was spiked in the associated MS samples. Many of the quantitation peaks for each of the target Aroclors were present in the unspiked parent sample chromatograms such that Aroclor 1242 quantitated to a concentration above the MDL in the unspiked samples although it was not reported as a positive result due to the fact that there were better matches for other Aroclors. The laboratory information management system (LIMS) used at the prior project laboratory was able to subtract parent sample background (Aroclor 1242) by a manual process to calculate the MS recovery even when Aroclor 1242 was not reported in the parent sample. Although this was an atypical laboratory practice, it resulted in more accurate MS recovery quantitation as it accounted for PCB background that otherwise elevated the MS recovery. Due to limitations in the software used to report PCB Aroclor data at Pace Green Bay, parent sample background of a non-reported Aroclor cannot be subtracted from MS results in order to calculate MS recovery. The data reviewer manually re-calculated the background results for Aroclor 1242 in all parent samples, and manually re-calculated the MS recoveries after subtracting the background results from the MS results. The spreadsheets used by the data reviewer are included in Section 4 of the report for each re-calculated MS recovery. The EDV process was based on the original MS recoveries; however, the data reviewer re-evaluated the MSs based on the re-calculated recoveries.

3. The EDV process did not include an evaluation of the "Calibration Compliant" field as required by the Phase 2 RAM QAPP (Section 12.2.1). A separate query was performed on the database to identify any instances when the calibration associated with a result was reported to be non-compliant. The query did not identify any instances of non-compliant

calibrations for the data included in this report. The calibration was also confirmed to be compliant during validation of the data.

4. For several samples in all SDGs, the total PCBs result was not flagged "J" during the EDV process. These results should be considered estimated and have been flagged "J" on the data tables, as they are summations including estimated results for various Aroclors.

5. The laboratory noted in the Case Narrative and Sample Receipt of SDG 40151619 that ice melt water was present in all sample bags. The data reviewer determined qualification of the data was not warranted based on this finding.

6. There was a discrepancy for the time received for all SDG 40151619 samples. The laboratory listed a time of 1521 throughout the data package, while the COC indicated 0950 for the time received. The data reviewer hand corrected the laboratory data included in Section 4C to reflect the recorded time on the COC.

7. Environmental Standards worked with Pace personnel to resolve several deliverable issues that are summarized in the Project Correspondence of this report. This QA review is based on the revised data packages provided by Pace to incorporate the resolution to the issues included in Section 4C.

B. Procedural Review

1. The Phase 2 RAM QAPP surrogate recovery limits of 60% - 140% (CAM 15, Attachment 3, SOP S-GB-O-067-Rev.00, Section 13.1) do not apply to samples analyzed at greater than 5-fold dilutions. Based on discussions with Pace Green Bay, the laboratory evaluates surrogate recoveries up to a 10-fold dilution (refer to Project Correspondence). For the majority of samples in SDG 40157940, the sample-specific method performance based on surrogate recoveries could not be evaluated due to the dilutions (> 10 fold) required for analysis because of the PCB levels present in the samples (SOP DVAROCLOR, Surrogate Note 5).

2. The Phase 2 RAM QAPP COC requirements described in Section 10.1 were not met for the following SDGs. The COC Record for SDG 40151619 did not include the Sampler name. The COC Record for SDG 40151542 did not include the Sampler name, relinquish date, or relinquish time; however, the Sample Receipt indicated that only one of three coolers were received during shipment, so it is possible that a completed COC was included, but could not be verified by the data reviewer.

C. Data Usability Evaluation

With respect to data usability, the principal areas of concern are quantitation below the RLs and the reporting convention for total PCBs (*i.e.*, summing the estimated individual Aroclor results). Based on a rigorous review of the data provided, the following data qualifiers are offered. The following data usability issues represent an interpretation of the QC results obtained for the project samples. Quite often, data qualifications address issues relating to sample matrix problems. Similarly, the Phase 2 RAM QAPP data validation SOP specifies areas of the data that require qualification, yet the analytical SOPs used for analysis may not require corrective action. Accordingly, the following data usability issues should not be construed as an indication of laboratory performance.

Organic Data Qualifiers

- According to project-specific reporting requirements, all results reported at concentrations between the sample-specific MDLs and RLs (adjusted for dilution factors and sample weight) should be considered estimated and have been flagged “J” on the data tables. (Val Note = J-RL)

- The reported positive results for total PCBs summed from estimated individual Aroclor concentrations should be considered estimated and have been flagged “J” on the data tables. (Val Note = J-TOT)

D. Summary

This QA review identified aspects of the data that required qualification. Overall, the analytical data are acceptable for use as reported by the laboratory, with the following qualifications. Several results were qualified due to quantitation below the RLs and the reporting convention for total PCBs (*i.e.*, summing the estimated individual Aroclor results). In order to use any of the data, the data user should understand the qualifications and limitations as specified in this QA review.

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SECTION 2

ANALYTICAL RESULTS

A. SDG 40148598

Sample Delivery Grou	40148598
Sys Sample Code	COC170418-T11-01-001
Sample Name	TZ1-170418-01-STB-05
Sample Date	04/18/17 05:48 PM
Lab Sample Id T	40148598001
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	1
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		11.4	49.8	U			11.4	49.8	U	U	N	
Aroclor 1221	11104-28-2		11.4	49.8	U			11.4	49.8	U	U	N	
Aroclor 1232	11141-16-5		11.4	49.8	U			11.4	49.8	U	U	N	
Aroclor 1242	53469-21-9		11.4	49.8	U			11.4	49.8	U	U	N	
Aroclor 1248	12672-29-6	70.1	11.4	49.8			70.1	11.4	49.8			Y	
Aroclor 1254	11097-69-1	75.1	11.4	49.8			75.1	11.4	49.8			Y	
Aroclor 1260	11096-82-5	75.4	11.4	49.8			75.4	11.4	49.8			Y	
Total PCBs	1336-36-3	221	11.4	49.8			221	11.4	49.8			Y	

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170418-T11-01-002
Sample Name	TZ1-170418-01-STB-04
Sample Date	04/18/17 05:44 PM
Lab Sample Id T	40148598002
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	1
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		11.4	50	U			11.4	50	U	U	N	
Aroclor 1221	11104-28-2		11.4	50	U			11.4	50	U	U	N	
Aroclor 1232	11141-16-5		11.4	50	U			11.4	50	U	U	N	
Aroclor 1242	53469-21-9		11.4	50	U			11.4	50	U	U	N	
Aroclor 1248	12672-29-6	19	11.4	50	J		19	11.4	50	J	J	Y	J-RL
Aroclor 1254	11097-69-1	28.9	11.4	50	J		28.9	11.4	50	J	J	Y	J-RL
Aroclor 1260	11096-82-5	28.8	11.4	50	J		28.8	11.4	50	J	J	Y	J-RL
Total PCBs	1336-36-3	76.7	11.4	50			76.7	11.4	50	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170418-T11-01-003
Sample Name	TZ1-170418-01-STB-03
Sample Date	04/18/17 05:42 PM
Lab Sample Id T	40148598003
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	1
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		11.4	49.8	U			11.4	49.8	U	U	N	
Aroclor 1221	11104-28-2		11.4	49.8	U			11.4	49.8	U	U	N	
Aroclor 1232	11141-16-5		11.4	49.8	U			11.4	49.8	U	U	N	
Aroclor 1242	53469-21-9		11.4	49.8	U			11.4	49.8	U	U	N	
Aroclor 1248	12672-29-6	67.9	11.4	49.8			67.9	11.4	49.8			Y	
Aroclor 1254	11097-69-1	86	11.4	49.8			86	11.4	49.8			Y	
Aroclor 1260	11096-82-5	104	11.4	49.8			104	11.4	49.8			Y	
Total PCBs	1336-36-3	258	11.4	49.8			258	11.4	49.8			Y	

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170418-T11-01-004
Sample Name	TZ1-170418-01-STB-02
Sample Date	04/18/17 05:40 PM
Lab Sample Id T	40148598004
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	1
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		11.4	49.8	U			11.4	49.8	U	U	N	
Aroclor 1221	11104-28-2		11.4	49.8	U			11.4	49.8	U	U	N	
Aroclor 1232	11141-16-5		11.4	49.8	U			11.4	49.8	U	U	N	
Aroclor 1242	53469-21-9		11.4	49.8	U			11.4	49.8	U	U	N	
Aroclor 1248	12672-29-6	73	11.4	49.8			73	11.4	49.8			Y	
Aroclor 1254	11097-69-1	94.6	11.4	49.8			94.6	11.4	49.8			Y	
Aroclor 1260	11096-82-5	96.2	11.4	49.8			96.2	11.4	49.8			Y	
Total PCBs	1336-36-3	264	11.4	49.8			264	11.4	49.8			Y	

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170418-T11-01-005
Sample Name	TZ1-170418-01-STB-01
Sample Date	04/18/17 05:35 PM
Lab Sample Id T	40148598005
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	2
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		22.8	99.8	U			22.8	99.8	U	U	N	
Aroclor 1221	11104-28-2		22.8	99.8	U			22.8	99.8	U	U	N	
Aroclor 1232	11141-16-5		22.8	99.8	U			22.8	99.8	U	U	N	
Aroclor 1242	53469-21-9		22.8	99.8	U			22.8	99.8	U	U	N	
Aroclor 1248	12672-29-6	229	22.8	99.8			229	22.8	99.8			Y	
Aroclor 1254	11097-69-1	253	22.8	99.8			253	22.8	99.8			Y	
Aroclor 1260	11096-82-5	274	22.8	99.8			274	22.8	99.8			Y	
Total PCBs	1336-36-3	756	22.8	99.8			756	22.8	99.8			Y	

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

B. SDG 40151542

Sample Delivery Grou	40151542
Sys Sample Code	COC170612-T11-01-014
Sample Name	TD4-170612-01-SMB-01
Sample Date	06/12/17 04:16 PM
Lab Sample Id T	40151542001
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	1
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		11.4	50.2	U			11.4	50.2	U	U	N	
Aroclor 1221	11104-28-2		11.4	50.2	U			11.4	50.2	U	U	N	
Aroclor 1232	11141-16-5		11.4	50.2	U			11.4	50.2	U	U	N	
Aroclor 1242	53469-21-9		11.4	50.2	U			11.4	50.2	U	U	N	
Aroclor 1248	12672-29-6	150	11.4	50.2			150	11.4	50.2			Y	
Aroclor 1254	11097-69-1	116	11.4	50.2			116	11.4	50.2			Y	
Aroclor 1260	11096-82-5	46.9	11.4	50.2	J		46.9	11.4	50.2	J	J	Y	J-RL
Total PCBs	1336-36-3	313	11.4	50.2			313	11.4	50.2	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170612-T11-01-015
Sample Name	TD3-170612-01-SMB-05
Sample Date	06/12/17 04:09 PM
Lab Sample Id T	40151542002
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	10
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		114	501	U			114	501	U	U	N	
Aroclor 1221	11104-28-2		114	501	U			114	501	U	U	N	
Aroclor 1232	11141-16-5		114	501	U			114	501	U	U	N	
Aroclor 1242	53469-21-9		114	501	U			114	501	U	U	N	
Aroclor 1248	12672-29-6	1,900	114	501			1,900	114	501			Y	
Aroclor 1254	11097-69-1	1,980	114	501			1,980	114	501			Y	
Aroclor 1260	11096-82-5	392	114	501	J		392	114	501	J	J	Y	J-RL
Total PCBs	1336-36-3	4,280	114	501			4,280	114	501	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170612-T11-01-016
Sample Name	TD3-170612-01-SMB-04
Sample Date	06/12/17 04:07 PM
Lab Sample Id T	40151542003
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	4
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		45.5	199	U			45.5	199	U	U	N	
Aroclor 1221	11104-28-2		45.5	199	U			45.5	199	U	U	N	
Aroclor 1232	11141-16-5		45.5	199	U			45.5	199	U	U	N	
Aroclor 1242	53469-21-9		45.5	199	U			45.5	199	U	U	N	
Aroclor 1248	12672-29-6	1,010	45.5	199			1,010	45.5	199			Y	
Aroclor 1254	11097-69-1	584	45.5	199			584	45.5	199			Y	
Aroclor 1260	11096-82-5	103	45.5	199	J		103	45.5	199	J	J	Y	J-RL
Total PCBs	1336-36-3	1,700	45.5	199			1,700	45.5	199	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170612-T11-01-017
Sample Name	TD3-170612-01-SMB-03
Sample Date	06/12/17 04:05 PM
Lab Sample Id T	40151542004
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	10
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		114	500	U			114	500	U	U	N	
Aroclor 1221	11104-28-2		114	500	U			114	500	U	U	N	
Aroclor 1232	11141-16-5		114	500	U			114	500	U	U	N	
Aroclor 1242	53469-21-9		114	500	U			114	500	U	U	N	
Aroclor 1248	12672-29-6	1,170	114	500			1,170	114	500			Y	
Aroclor 1254	11097-69-1	1,690	114	500			1,690	114	500			Y	
Aroclor 1260	11096-82-5	970	114	500			970	114	500			Y	
Total PCBs	1336-36-3	3,830	114	500			3,830	114	500			Y	

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170612-T11-01-018
Sample Name	TD3-170612-01-SMB-02
Sample Date	06/12/17 04:03 PM
Lab Sample Id T	40151542005
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	5
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		57.2	251	U			57.2	251	U	U	N	
Aroclor 1221	11104-28-2		57.2	251	U			57.2	251	U	U	N	
Aroclor 1232	11141-16-5		57.2	251	U			57.2	251	U	U	N	
Aroclor 1242	53469-21-9		57.2	251	U			57.2	251	U	U	N	
Aroclor 1248	12672-29-6	1,060	57.2	251			1,060	57.2	251			Y	
Aroclor 1254	11097-69-1	1,080	57.2	251			1,080	57.2	251			Y	
Aroclor 1260	11096-82-5	200	57.2	251	J		200	57.2	251	J	J	Y	J-RL
Total PCBs	1336-36-3	2,340	57.2	251			2,340	57.2	251	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170612-T11-01-019
Sample Name	TD3-170612-01-SMB-01
Sample Date	06/12/17 04:01 PM
Lab Sample Id T	40151542006
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	3
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		34.2	150	U			34.2	150	U	U	N	
Aroclor 1221	11104-28-2		34.2	150	U			34.2	150	U	U	N	
Aroclor 1232	11141-16-5		34.2	150	U			34.2	150	U	U	N	
Aroclor 1242	53469-21-9		34.2	150	U			34.2	150	U	U	N	
Aroclor 1248	12672-29-6	564	34.2	150			564	34.2	150			Y	
Aroclor 1254	11097-69-1	357	34.2	150			357	34.2	150			Y	
Aroclor 1260	11096-82-5	101	34.2	150	J		101	34.2	150	J	J	Y	J-RL
Total PCBs	1336-36-3	1,020	34.2	150			1,020	34.2	150	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

C. SDG 40151619

Sample Delivery Grou	40151619
Sys Sample Code	COC170613-T11-06-001
Sample Name	SW1-170613-01-YP-05
Sample Date	06/13/17 04:21 PM
Lab Sample Id T	40151619001
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	1
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		11.4	50.1	U			11.4	50.1	U	U	N	
Aroclor 1221	11104-28-2		11.4	50.1	U			11.4	50.1	U	U	N	
Aroclor 1232	11141-16-5		11.4	50.1	U			11.4	50.1	U	U	N	
Aroclor 1242	53469-21-9		11.4	50.1	U			11.4	50.1	U	U	N	
Aroclor 1248	12672-29-6	166	11.4	50.1			166	11.4	50.1			Y	
Aroclor 1254	11097-69-1	96.8	11.4	50.1			96.8	11.4	50.1			Y	
Aroclor 1260	11096-82-5	23.3	11.4	50.1	J		23.3	11.4	50.1	J	J	Y	J-RL
Total PCBs	1336-36-3	286	11.4	50.1			286	11.4	50.1	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170613-T11-06-002
Sample Name	SW1-170613-01-YP-04
Sample Date	06/13/17 04:20 PM
Lab Sample Id T	40151619002
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	1
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		11.4	49.9	U			11.4	49.9	U	U	N	
Aroclor 1221	11104-28-2		11.4	49.9	U			11.4	49.9	U	U	N	
Aroclor 1232	11141-16-5		11.4	49.9	U			11.4	49.9	U	U	N	
Aroclor 1242	53469-21-9		11.4	49.9	U			11.4	49.9	U	U	N	
Aroclor 1248	12672-29-6	284	11.4	49.9			284	11.4	49.9			Y	
Aroclor 1254	11097-69-1	183	11.4	49.9			183	11.4	49.9			Y	
Aroclor 1260	11096-82-5	41.4	11.4	49.9	J		41.4	11.4	49.9	J	J	Y	J-RL
Total PCBs	1336-36-3	508	11.4	49.9			508	11.4	49.9	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170613-T11-06-003
Sample Name	SW1-170613-01-YP-03
Sample Date	06/13/17 04:18 PM
Lab Sample Id T	40151619003
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	1
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		11.4	49.9	U			11.4	49.9	U	U	N	
Aroclor 1221	11104-28-2		11.4	49.9	U			11.4	49.9	U	U	N	
Aroclor 1232	11141-16-5		11.4	49.9	U			11.4	49.9	U	U	N	
Aroclor 1242	53469-21-9		11.4	49.9	U			11.4	49.9	U	U	N	
Aroclor 1248	12672-29-6	325	11.4	49.9			325	11.4	49.9			Y	
Aroclor 1254	11097-69-1	215	11.4	49.9			215	11.4	49.9			Y	
Aroclor 1260	11096-82-5	56.2	11.4	49.9			56.2	11.4	49.9			Y	
Total PCBs	1336-36-3	596	11.4	49.9			596	11.4	49.9			Y	

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170613-T11-06-004
Sample Name	SW1-170613-01-YP-02
Sample Date	06/13/17 04:16 PM
Lab Sample Id T	40151619004
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	1
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		11.4	50.1	U			11.4	50.1	U	U	N	
Aroclor 1221	11104-28-2		11.4	50.1	U			11.4	50.1	U	U	N	
Aroclor 1232	11141-16-5		11.4	50.1	U			11.4	50.1	U	U	N	
Aroclor 1242	53469-21-9		11.4	50.1	U			11.4	50.1	U	U	N	
Aroclor 1248	12672-29-6	194	11.4	50.1			194	11.4	50.1			Y	
Aroclor 1254	11097-69-1	103	11.4	50.1			103	11.4	50.1			Y	
Aroclor 1260	11096-82-5	34.2	11.4	50.1	J		34.2	11.4	50.1	J	J	Y	J-RL
Total PCBs	1336-36-3	332	11.4	50.1			332	11.4	50.1	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

D. SDG 40157940

Sample Delivery Grou	40157940
Sys Sample Code	COC170828-T11-02-001
Sample Name	TD5-170828-01-PKSD-02
Sample Date	08/28/17 02:11 PM
Lab Sample Id T	40157940001
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	3
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		34.1	150	U			34.1	150	U	U	N	
Aroclor 1221	11104-28-2	110	34.1	150	J		110	34.1	150	J	J	Y	J-RL
Aroclor 1232	11141-16-5		34.1	150	U			34.1	150	U	U	N	
Aroclor 1242	53469-21-9		34.1	150	U			34.1	150	U	U	N	
Aroclor 1248	12672-29-6	984	34.1	150			984	34.1	150			Y	
Aroclor 1254	11097-69-1	571	34.1	150			571	34.1	150			Y	
Aroclor 1260	11096-82-5	77.5	34.1	150	J		77.5	34.1	150	J	J	Y	J-RL
Total PCBs	1336-36-3	1,740	34.1	150			1,740	34.1	150	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-002
Sample Name	TD3-170828-01-PKSD-05
Sample Date	08/28/17 03:10 PM
Lab Sample Id T	40157940002
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	100
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		1,140	5,010	U			1,140	5,010	U	U	N	
Aroclor 1221	11104-28-2		1,140	5,010	U			1,140	5,010	U	U	N	
Aroclor 1232	11141-16-5		1,140	5,010	U			1,140	5,010	U	U	N	
Aroclor 1242	53469-21-9		1,140	5,010	U			1,140	5,010	U	U	N	
Aroclor 1248	12672-29-6	20,400	1,140	5,010			20,400	1,140	5,010			Y	
Aroclor 1254	11097-69-1	10,400	1,140	5,010			10,400	1,140	5,010			Y	
Aroclor 1260	11096-82-5		1,140	5,010	U			1,140	5,010	U	U	N	
Total PCBs	1336-36-3	30,800	1,140	5,010			30,800	1,140	5,010			Y	

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-003
Sample Name	TD3-170828-01-PKSD-04
Sample Date	08/28/17 03:09 PM
Lab Sample Id T	40157940003
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	100
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		1,140	4,990	U			1,140	4,990	U	U	N	
Aroclor 1221	11104-28-2		1,140	4,990	U			1,140	4,990	U	U	N	
Aroclor 1232	11141-16-5		1,140	4,990	U			1,140	4,990	U	U	N	
Aroclor 1242	53469-21-9		1,140	4,990	U			1,140	4,990	U	U	N	
Aroclor 1248	12672-29-6	19,900	1,140	4,990			19,900	1,140	4,990			Y	
Aroclor 1254	11097-69-1	10,700	1,140	4,990			10,700	1,140	4,990			Y	
Aroclor 1260	11096-82-5		1,140	4,990	U			1,140	4,990	U	U	N	
Total PCBs	1336-36-3	30,600	1,140	4,990			30,600	1,140	4,990			Y	

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-004
Sample Name	TD3-170828-01-PKSD-03
Sample Date	08/28/17 03:07 PM
Lab Sample Id T	40157940004
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	50
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		709	3,110	U			709	3,110	U	U	N	
Aroclor 1221	11104-28-2		709	3,110	U			709	3,110	U	U	N	
Aroclor 1232	11141-16-5		709	3,110	U			709	3,110	U	U	N	
Aroclor 1242	53469-21-9		709	3,110	U			709	3,110	U	U	N	
Aroclor 1248	12672-29-6	10,300	709	3,110			10,300	709	3,110			Y	
Aroclor 1254	11097-69-1	7,300	709	3,110			7,300	709	3,110			Y	
Aroclor 1260	11096-82-5	814	709	3,110	J		814	709	3,110	J	J	Y	J-RL
Total PCBs	1336-36-3	18,400	709	3,110			18,400	709	3,110	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-005
Sample Name	TD3-170828-01-PKSD-02
Sample Date	08/28/17 03:05 PM
Lab Sample Id T	40157940005
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	200
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		2,280	10,000	U			2,280	10,000	U	U	N	
Aroclor 1221	11104-28-2		2,280	10,000	U			2,280	10,000	U	U	N	
Aroclor 1232	11141-16-5		2,280	10,000	U			2,280	10,000	U	U	N	
Aroclor 1242	53469-21-9		2,280	10,000	U			2,280	10,000	U	U	N	
Aroclor 1248	12672-29-6	66,500	2,280	10,000			66,500	2,280	10,000			Y	
Aroclor 1254	11097-69-1	26,700	2,280	10,000			26,700	2,280	10,000			Y	
Aroclor 1260	11096-82-5		2,280	10,000	U			2,280	10,000	U	U	N	
Total PCBs	1336-36-3	93,200	2,280	10,000			93,200	2,280	10,000			Y	

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-006
Sample Name	TD2-170828-01-PKSD-02
Sample Date	08/28/17 12:19 PM
Lab Sample Id T	40157940006
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	3
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		34.3	151	U			34.3	151	U	U	N	
Aroclor 1221	11104-28-2		34.3	151	U			34.3	151	U	U	N	
Aroclor 1232	11141-16-5		34.3	151	U			34.3	151	U	U	N	
Aroclor 1242	53469-21-9		34.3	151	U			34.3	151	U	U	N	
Aroclor 1248	12672-29-6	740	34.3	151			740	34.3	151			Y	
Aroclor 1254	11097-69-1	395	34.3	151			395	34.3	151			Y	
Aroclor 1260	11096-82-5	49.3	34.3	151	J		49.3	34.3	151	J	J	Y	J-RL
Total PCBs	1336-36-3	1,180	34.3	151			1,180	34.3	151	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-007
Sample Name	TD2-170828-01-PKSD-01
Sample Date	08/28/17 12:15 PM
Lab Sample Id T	40157940007
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	2
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		23.5	103	U			23.5	103	U	U	N	
Aroclor 1221	11104-28-2	55.2	23.5	103	J		55.2	23.5	103	J	J	Y	J-RL
Aroclor 1232	11141-16-5		23.5	103	U			23.5	103	U	U	N	
Aroclor 1242	53469-21-9		23.5	103	U			23.5	103	U	U	N	
Aroclor 1248	12672-29-6	490	23.5	103			490	23.5	103			Y	
Aroclor 1254	11097-69-1	282	23.5	103			282	23.5	103			Y	
Aroclor 1260	11096-82-5	41.5	23.5	103	J		41.5	23.5	103	J	J	Y	J-RL
Total PCBs	1336-36-3	868	23.5	103			868	23.5	103	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-008
Sample Name	TD1-170828-01-PKSD-05
Sample Date	08/28/17 12:00 PM
Lab Sample Id T	40157940008
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	20
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		316	1,390	U			316	1,390	U	U	N	
Aroclor 1221	11104-28-2		316	1,390	U			316	1,390	U	U	N	
Aroclor 1232	11141-16-5		316	1,390	U			316	1,390	U	U	N	
Aroclor 1242	53469-21-9		316	1,390	U			316	1,390	U	U	N	
Aroclor 1248	12672-29-6	6,660	316	1,390			6,660	316	1,390			Y	
Aroclor 1254	11097-69-1	5,530	316	1,390			5,530	316	1,390			Y	
Aroclor 1260	11096-82-5	657	316	1,390	J		657	316	1,390	J	J	Y	J-RL
Total PCBs	1336-36-3	12,800	316	1,390			12,800	316	1,390	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-009
Sample Name	TD1-170828-01-PKSD-04
Sample Date	08/28/17 11:58 AM
Lab Sample Id T	40157940009
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	15
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		237	1,040	U			237	1,040	U	U	N	
Aroclor 1221	11104-28-2		237	1,040	U			237	1,040	U	U	N	
Aroclor 1232	11141-16-5		237	1,040	U			237	1,040	U	U	N	
Aroclor 1242	53469-21-9		237	1,040	U			237	1,040	U	U	N	
Aroclor 1248	12672-29-6	4,080	237	1,040			4,080	237	1,040			Y	
Aroclor 1254	11097-69-1	2,880	237	1,040			2,880	237	1,040			Y	
Aroclor 1260	11096-82-5	331	237	1,040	J		331	237	1,040	J	J	Y	J-RL
Total PCBs	1336-36-3	7,290	237	1,040			7,290	237	1,040	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-010
Sample Name	TD1-170828-01-PKSD-03
Sample Date	08/28/17 11:56 AM
Lab Sample Id T	40157940010
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	10
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		114	502	U			114	502	U	U	N	
Aroclor 1221	11104-28-2		114	502	U			114	502	U	U	N	
Aroclor 1232	11141-16-5		114	502	U			114	502	U	U	N	
Aroclor 1242	53469-21-9		114	502	U			114	502	U	U	N	
Aroclor 1248	12672-29-6	2,120	114	502			2,120	114	502			Y	
Aroclor 1254	11097-69-1	1,760	114	502			1,760	114	502			Y	
Aroclor 1260	11096-82-5	204	114	502	J		204	114	502	J	J	Y	J-RL
Total PCBs	1336-36-3	4,080	114	502			4,080	114	502	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-011
Sample Name	TD1-170828-01-PKSD-02
Sample Date	08/28/17 11:53 AM
Lab Sample Id T	40157940011
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	10
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		205	901	U			205	901	U	U	N	
Aroclor 1221	11104-28-2		205	901	U			205	901	U	U	N	
Aroclor 1232	11141-16-5		205	901	U			205	901	U	U	N	
Aroclor 1242	53469-21-9		205	901	U			205	901	U	U	N	
Aroclor 1248	12672-29-6	3,850	205	901			3,850	205	901			Y	
Aroclor 1254	11097-69-1	2,510	205	901			2,510	205	901			Y	
Aroclor 1260	11096-82-5	279	205	901	J		279	205	901	J	J	Y	J-RL
Total PCBs	1336-36-3	6,640	205	901			6,640	205	901	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-012
Sample Name	ND2-170828-01-PKSD-04
Sample Date	08/28/17 05:51 PM
Lab Sample Id T	40157940012
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	30
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		343	1,500	U			343	1,500	U	U	N	
Aroclor 1221	11104-28-2	1,600	343	1,500			1,600	343	1,500			Y	
Aroclor 1232	11141-16-5		343	1,500	U			343	1,500	U	U	N	
Aroclor 1242	53469-21-9		343	1,500	U			343	1,500	U	U	N	
Aroclor 1248	12672-29-6	4,750	343	1,500			4,750	343	1,500			Y	
Aroclor 1254	11097-69-1	2,340	343	1,500			2,340	343	1,500			Y	
Aroclor 1260	11096-82-5	454	343	1,500	J		454	343	1,500	J	J	Y	J-RL
Total PCBs	1336-36-3	9,150	343	1,500			9,150	343	1,500	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-013
Sample Name	ND2-170828-01-PKSD-03
Sample Date	08/28/17 05:50 PM
Lab Sample Id T	40157940013
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	30
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		380	1,660	U			380	1,660	U	U	N	
Aroclor 1221	11104-28-2	2,560	380	1,660			2,560	380	1,660			Y	
Aroclor 1232	11141-16-5		380	1,660	U			380	1,660	U	U	N	
Aroclor 1242	53469-21-9		380	1,660	U			380	1,660	U	U	N	
Aroclor 1248	12672-29-6	6,250	380	1,660			6,250	380	1,660			Y	
Aroclor 1254	11097-69-1	3,300	380	1,660			3,300	380	1,660			Y	
Aroclor 1260	11096-82-5	504	380	1,660	J		504	380	1,660	J	J	Y	J-RL
Total PCBs	1336-36-3	12,600	380	1,660			12,600	380	1,660	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-014
Sample Name	ND2-170828-01-PKSD-02
Sample Date	08/28/17 05:48 PM
Lab Sample Id T	40157940014
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	50
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		569	2,500	U			569	2,500	U	U	N	
Aroclor 1221	11104-28-2		569	2,500	U			569	2,500	U	U	N	
Aroclor 1232	11141-16-5		569	2,500	U			569	2,500	U	U	N	
Aroclor 1242	53469-21-9		569	2,500	U			569	2,500	U	U	N	
Aroclor 1248	12672-29-6	10,200	569	2,500			10,200	569	2,500			Y	
Aroclor 1254	11097-69-1	4,950	569	2,500			4,950	569	2,500			Y	
Aroclor 1260	11096-82-5		569	2,500	U			569	2,500	U	U	N	
Total PCBs	1336-36-3	15,200	569	2,500			15,200	569	2,500			Y	

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-015
Sample Name	ND2-170828-01-GOSH-02
Sample Date	08/28/17 05:58 PM
Lab Sample Id T	40157940015
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	20
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		228	1,000	U			228	1,000	U	U	N	
Aroclor 1221	11104-28-2	996	228	1,000	J		996	228	1,000	J	J	Y	J-RL
Aroclor 1232	11141-16-5		228	1,000	U			228	1,000	U	U	N	
Aroclor 1242	53469-21-9		228	1,000	U			228	1,000	U	U	N	
Aroclor 1248	12672-29-6	2,930	228	1,000			2,930	228	1,000			Y	
Aroclor 1254	11097-69-1	1,260	228	1,000			1,260	228	1,000			Y	
Aroclor 1260	11096-82-5	288	228	1,000	J		288	228	1,000	J	J	Y	J-RL
Total PCBs	1336-36-3	5,470	228	1,000			5,470	228	1,000	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-016
Sample Name	ND1-170828-01-PKSD-06
Sample Date	08/28/17 05:41 PM
Lab Sample Id T	40157940016
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	20
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		228	1,000	U			228	1,000	U	U	N	
Aroclor 1221	11104-28-2		228	1,000	U			228	1,000	U	U	N	
Aroclor 1232	11141-16-5		228	1,000	U			228	1,000	U	U	N	
Aroclor 1242	53469-21-9		228	1,000	U			228	1,000	U	U	N	
Aroclor 1248	12672-29-6	3,920	228	1,000			3,920	228	1,000			Y	
Aroclor 1254	11097-69-1	2,120	228	1,000			2,120	228	1,000			Y	
Aroclor 1260	11096-82-5	242	228	1,000	J		242	228	1,000	J	J	Y	J-RL
Total PCBs	1336-36-3	6,290	228	1,000			6,290	228	1,000	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-017
Sample Name	ND1-170828-01-PKSD-05
Sample Date	08/28/17 05:40 PM
Lab Sample Id T	40157940017
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	20
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		227	997	U			227	997	U	U	N	
Aroclor 1221	11104-28-2		227	997	U			227	997	U	U	N	
Aroclor 1232	11141-16-5		227	997	U			227	997	U	U	N	
Aroclor 1242	53469-21-9		227	997	U			227	997	U	U	N	
Aroclor 1248	12672-29-6	3,540	227	997			3,540	227	997			Y	
Aroclor 1254	11097-69-1	2,340	227	997			2,340	227	997			Y	
Aroclor 1260	11096-82-5	253	227	997	J		253	227	997	J	J	Y	J-RL
Total PCBs	1336-36-3	6,130	227	997			6,130	227	997	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-018
Sample Name	ND1-170828-01-PKSD-03
Sample Date	08/28/17 05:36 PM
Lab Sample Id T	40157940018
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	5
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		56.9	250	U			56.9	250	U	U	N	
Aroclor 1221	11104-28-2	145	56.9	250	J		145	56.9	250	J	J	Y	J-RL
Aroclor 1232	11141-16-5		56.9	250	U			56.9	250	U	U	N	
Aroclor 1242	53469-21-9		56.9	250	U			56.9	250	U	U	N	
Aroclor 1248	12672-29-6	1,320	56.9	250			1,320	56.9	250			Y	
Aroclor 1254	11097-69-1	805	56.9	250			805	56.9	250			Y	
Aroclor 1260	11096-82-5	116	56.9	250	J		116	56.9	250	J	J	Y	J-RL
Total PCBs	1336-36-3	2,390	56.9	250			2,390	56.9	250	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-019
Sample Name	ND1-170828-01-PKSD-02
Sample Date	08/28/17 05:35 PM
Lab Sample Id T	40157940019
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	30
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		342	1,500	U			342	1,500	U	U	N	
Aroclor 1221	11104-28-2	3,200	342	1,500			3,200	342	1,500			Y	
Aroclor 1232	11141-16-5		342	1,500	U			342	1,500	U	U	N	
Aroclor 1242	53469-21-9		342	1,500	U			342	1,500	U	U	N	
Aroclor 1248	12672-29-6	6,370	342	1,500			6,370	342	1,500			Y	
Aroclor 1254	11097-69-1	2,470	342	1,500			2,470	342	1,500			Y	
Aroclor 1260	11096-82-5	496	342	1,500	J		496	342	1,500	J	J	Y	J-RL
Total PCBs	1336-36-3	12,500	342	1,500			12,500	342	1,500	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

Sample Delivery Grou	
Sys Sample Code	COC170828-T11-02-020
Sample Name	ND1-170828-01-PKSD-01
Sample Date	08/28/17 05:33 PM
Lab Sample Id T	40157940020
Sample Type Code	ENV
Sample Matrix Code	F
Lab Anl Method Name	SW846 8082A
Dilution Factor	4
Qc Level	Validated
Total Or Dissolved	N
Result Unit	ug/kg

Chemical Name	Cas Rn	Lab Result Value	Lab MDL	Lab RL	Lab Qualifiers	Ver Qualifiers	Validated Result Value	Validated MDL	Validated RL	Val Qualifiers	Final Result Qualifiers	Detect Flag	Val Notes
Aroclor 1016	12674-11-2		45.6	200	U			45.6	200	U	U	N	
Aroclor 1221	11104-28-2	101	45.6	200	J		101	45.6	200	J	J	Y	J-RL
Aroclor 1232	11141-16-5		45.6	200	U			45.6	200	U	U	N	
Aroclor 1242	53469-21-9		45.6	200	U			45.6	200	U	U	N	
Aroclor 1248	12672-29-6	1,080	45.6	200			1,080	45.6	200			Y	
Aroclor 1254	11097-69-1	658	45.6	200			658	45.6	200			Y	
Aroclor 1260	11096-82-5	79	45.6	200	J		79	45.6	200	J	J	Y	J-RL
Total PCBs	1336-36-3	1,920	45.6	200			1,920	45.6	200	J	J	Y	J-TOT

Laboratory Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
B-The compound was detected in an associated method blank at a concentration exceeding the MDL.
J-Quantitation is approximate (estimated) due a concentration less than the RL but greater than the MDL.

Verification/Validated Final Result Qualifier Definitions:
U-The compound/analyte was analyzed for, but was not detected above the reported sample MDL.
U*-This compound/analyte should be considered "not detected" since it was detected in a blank at a similar level.
J-Quantitation is approximate (estimated) due to limitations identified during the quality assurance review (data validation).
N-The analysis indicates that there is presumptive evidence to make a "tentative identification" of this compound/analyte.
R-Unusable (rejected) result - compound/analyte may or may not be present in this sample.
UR-Unusable "not-detected" result; compound may or may not be present in this sample.
UJ-This compound/analyte was not detected, but the MDL and RL are estimated due to a bias identified during the quality assurance review.

SECTION 3

ELECTRONIC DATA VERIFICATION REPORTS

****
BEGIN CHECKS ON HOLDING TIMES
::::::::::
No results qualified due to holding time failures

****
BEGIN CHECKS ON METHOD AND FIELD BLANKS
::::::::::
No results qualified due to method or field blanks

****
BEGIN CHECKS ON MATRIX SPIKES
::::::::::
No results qualified due to matrix spike failures

****
BEGIN CHECKS ON MATRIX SPIKE DUPLICATES
::::::::::
No results qualified due to matrix spike duplicate failures

****
BEGIN CHECKS ON SURROGATES
::::::::::
No results qualified due to surrogate failures

****
BEGIN CHECKS ON LABORATORY CONTROL SAMPLES
::::::::::
No results qualified due to laboratory control samples

****

BEGIN CHECKS ON LABORATORY DUPLICATES

::

No results qualified due to laboratory duplicate failures

****

BEGIN CHECKS ON TOTAL PCB CALCULATION

::

NO PCB CONGENER DATA FOUND

::

BEGIN CHECKS ON PCB AROCLORS: SW846 8082A

No Total PCBs results qualified due to summation of validated aroclors

Verification_Report_40157940_EFW2

****
BEGIN CHECKS ON HOLDING TIMES
::::::::::
No results qualified due to holding time failures

****
BEGIN CHECKS ON METHOD AND FIELD BLANKS
::::::::::
No results qualified due to method or field blanks

****
BEGIN CHECKS ON MATRIX SPIKES
::::::::::
Note: allowed limit can be either an upper limit or a lower limit

Removed Qualification

Sys_Sample_Code	Sample_Type_Code	Lab_Anl_Method_Name	Chemical_Name	Qualifier	Allowed Limit (%)	Failing Result (%)	Notes
COC170828-T11-02-015	ENV	SW846 8082A	Aroclor 1260	J	Allowed upper limit = 130	Failing result = 487.000	
COC170828-T11-02-015	ENV	SW846 8082A	Aroclor 1221	J	Allowed upper limit = 130	Failing result = 487.000	

2 results qualified due to matrix spike failures

****
BEGIN CHECKS ON MATRIX SPIKE DUPLICATES
::::::::::
No results qualified due to matrix spike duplicate failures

****
BEGIN CHECKS ON SURROGATES
::::::::::
No results qualified due to surrogate failures

****
BEGIN CHECKS ON LABORATORY CONTROL SAMPLES
::
No results qualified due to laboratory control samples

****
BEGIN CHECKS ON LABORATORY DUPLICATES
::
No results qualified due to laboratory duplicate failures

****
BEGIN CHECKS ON TOTAL PCB CALCULATION
::

NO PCB CONGENER DATA FOUND

::
BEGIN CHECKS ON PCB AROCLORS: SW846 8082A
No Total PCBs results qualified due to summation of validated aroclors

****
BEGIN CHECKS ON HOLDING TIMES
::::::::::
No results qualified due to holding time failures

****
BEGIN CHECKS ON METHOD AND FIELD BLANKS
::::::::::
No results qualified due to method or field blanks

****
BEGIN CHECKS ON MATRIX SPIKES
::::::::::
No results qualified due to matrix spike failures

****
BEGIN CHECKS ON MATRIX SPIKE DUPLICATES
::::::::::
No results qualified due to matrix spike duplicate failures

****
BEGIN CHECKS ON SURROGATES
::::::::::
No results qualified due to surrogate failures

****
BEGIN CHECKS ON LABORATORY CONTROL SAMPLES
::::::::::
No results qualified due to laboratory control samples

****

BEGIN CHECKS ON LABORATORY DUPLICATES

::

No results qualified due to laboratory duplicate failures

****

BEGIN CHECKS ON TOTAL PCB CALCULATION

::

NO PCB CONGENER DATA FOUND

::

NO PCB AROCLOR DATA FOUND

****
BEGIN CHECKS ON HOLDING TIMES
::::::::::
No results qualified due to holding time failures

****
BEGIN CHECKS ON METHOD AND FIELD BLANKS
::::::::::
No results qualified due to method or field blanks

****
BEGIN CHECKS ON MATRIX SPIKES
::::::::::
Note: allowed limit can be either an upper limit or a lower limit

Sys_Sample_Code	Sample_Type_Code	Lab_Anl_Method_Name	Chemical_Name	Qualifier	Allowed Limit (%)	Failing Result (%)	Notes
COC170612-T11-01-017LR	LR	SW846 8082A	Aroclor 1260	J	Allowed upper limit = 130	Failing result = 136.000	
COC170612-T11-01-017LR	LR	SW846 8082A	Aroclor 1248	J	Allowed upper limit = 130	Failing result = 136.000	
COC170612-T11-01-017	ENV	SW846 8082A	Aroclor 1260	J	Allowed upper limit = 130	Failing result = 136.000	

3 results qualified due to matrix spike failures

****
BEGIN CHECKS ON MATRIX SPIKE DUPLICATES
::::::::::
No results qualified due to matrix spike duplicate failures

****

BEGIN CHECKS ON SURROGATES

::

No results qualified due to surrogate failures

****

BEGIN CHECKS ON LABORATORY CONTROL SAMPLES

::

No results qualified due to laboratory control samples

****

BEGIN CHECKS ON LABORATORY DUPLICATES

::

No results qualified due to laboratory duplicate failures

****

BEGIN CHECKS ON TOTAL PCB CALCULATION

::

NO PCB CONGENER DATA FOUND

::

BEGIN CHECKS ON PCB AROCLORS: SW846 8082A

No Total PCBs results qualified due to summation of validated aroclors

SECTION 4

DATA SUPPORT DOCUMENTATION

A. SDG 40148598

ENVIRONMENTAL STANDARDS

ORGANIC ANALYSIS SUPPORT DOCUMENTATION

ESI project name:	GEHR RAMP	Reviewed by:	JA 5/31/18
Sample Collection Dates:	4/18/17	Approved by:	MAM 6/1/18
Job Number:	20115678.H000	Completion Date:	
Project Manager:	Meg Michell		
Laboratory:	Pace GB	Applicable Sample No's (X)	Refer to Table 1 in the Quality Assurance Review

			Sample No.	Lab Control No.
Deliverable:	CLP (Full)	( )	Refer to Table 1	
	Level IV (Full)	( )		
	Limited	( )		
	Other:	Full Per Phase 2 RAMP QAPP		

The following table indicates criteria that were examined, the identified problems, and support documentation attachments

	Criteria Examined in Detail Check (√) if Yes or Footnote Letter for Comments Below					Problems Identified Check (√) if Yes or Footnote Letter for Comments Below					Support Documentation Attachments Check (√) if Yes or Footnote Letter for Comments Below				
	8082A					8082A					8082A				
Holding Times	X										X				
Blank Analysis: Target Cmpds	X										X				
Sys Montr Cmps/Surrogates	X										X				
Matrix Spike/Matrix Spike Duplicate	X										X				
Blank Spike	X										X				
Duplicate Analysis ( ) Field (X) Lab	X										X				
Detection Limit/Sensitivity															
Qualitative Identification: Target Cmpds	X										X				
Qualitative Identification: TICs															
DFTPP & BFB Mass Tuning															
GC Instrument Performance															
Initial Calibrations	X										X				
Continuing Calibrations	X										X				
Quantitation of Results	X					X					X				
DDT/Endrin Breakdown															
Surrogate Retention Time Shifts	X										X				
Internal Standards Performance															
Resolution Check Standards															
Analytical Sequence	X										X				
Florisil Cartridge & GPC Calibration															
GC Column Agreement															
Condition Upon Receipt	X										X				
Percent Solids															
Others:															

Comments: Results < RL should be considered estimated. Total PCB results calculated with estimated Aroclor results should be considered estimated.

PCB - FORM II SVOA-1
TISSUE SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Green Bay SDG No.: 40148598 Contract: HUDSON RIVER REMEDIAL

Instrument ID: 40GCSK

LAB SAMPLE ID	SAMPLE NAME	DCBP	TCMX
1653810	1653810BLANK	87	76
1653811	1653811LCS	87	80
1653812	1653812MS	96	92
1653813	1653813DUP	88	82
40148598001	TZ1-170418-01-STB-05	86	86
40148598002	TZ1-170418-01-STB-04	82	73
40148598003	TZ1-170418-01-STB-03	91	88
40148598004	TZ1-170418-01-STB-02	95	102
40148598005	TZ1-170418-01-STB-01	99	89

	QC LIMITS
(DCBP) = Decachlorobiphenyl (S)	(60-140)
(TCMX) = Tetrachloro-m-xylene (S)	(60-140)

* Values outside of QC Limits

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40148598

QC Batch: 282250 Analysis Method: EPA 8082A Mod
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 40148598001, 40148598002, 40148598003, 40148598004, 40148598005

METHOD BLANK: 1653810 Matrix: Tissue
Associated Lab Samples: 40148598001, 40148598002, 40148598003, 40148598004, 40148598005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<11.4	50.0	11.4	03/07/18 14:30	
PCB-1221 (Aroclor 1221)	ug/kg	<11.4	50.0	11.4	03/07/18 14:30	
PCB-1232 (Aroclor 1232)	ug/kg	<11.4	50.0	11.4	03/07/18 14:30	
PCB-1242 (Aroclor 1242)	ug/kg	<11.4	50.0	11.4	03/07/18 14:30	
PCB-1248 (Aroclor 1248)	ug/kg	<11.4	50.0	11.4	03/07/18 14:30	
PCB-1254 (Aroclor 1254)	ug/kg	<11.4	50.0	11.4	03/07/18 14:30	
PCB-1260 (Aroclor 1260)	ug/kg	<11.4	50.0	11.4	03/07/18 14:30	
Decachlorobiphenyl (S)	%	87	60-140		03/07/18 14:30	
Tetrachloro-m-xylene (S)	%	76	60-140		03/07/18 14:30	

LABORATORY CONTROL SAMPLE: 1653811

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<11.4			
PCB-1221 (Aroclor 1221)	ug/kg		<11.4			
PCB-1232 (Aroclor 1232)	ug/kg		<11.4			
PCB-1242 (Aroclor 1242)	ug/kg	250	228	91	70-130	
PCB-1248 (Aroclor 1248)	ug/kg		<11.4			
PCB-1254 (Aroclor 1254)	ug/kg		<11.4			
PCB-1260 (Aroclor 1260)	ug/kg		<11.4			
Decachlorobiphenyl (S)	%			87	60-140	
Tetrachloro-m-xylene (S)	%			80	60-140	

MATRIX SPIKE SAMPLE: 1653812

Parameter	Units	40148598005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<22.8		<22.8			
PCB-1221 (Aroclor 1221)	ug/kg	<22.8		<22.8			
PCB-1232 (Aroclor 1232)	ug/kg	<22.8		<22.8			
PCB-1242 (Aroclor 1242)	ug/kg	<22.8	250	313	125	70-130	
PCB-1248 (Aroclor 1248)	ug/kg	229		382			
PCB-1254 (Aroclor 1254)	ug/kg	253		267			
PCB-1260 (Aroclor 1260)	ug/kg	274		262			
Decachlorobiphenyl (S)	%				96	60-140	
Tetrachloro-m-xylene (S)	%				92	60-140	

refer to form 3 for recalc.

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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(920)469-2436

QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40148598

SAMPLE DUPLICATE: 1653813

Parameter	Units	40148598005 Result	Dup Result	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<22.8	<22.8		40	
PCB-1221 (Aroclor 1221)	ug/kg	<22.8	<22.8		40	
PCB-1232 (Aroclor 1232)	ug/kg	<22.8	<22.8		40	
PCB-1242 (Aroclor 1242)	ug/kg	<22.8	<22.8		40	
PCB-1248 (Aroclor 1248)	ug/kg	229	176	26	40	
PCB-1254 (Aroclor 1254)	ug/kg	253	195	26	40	
PCB-1260 (Aroclor 1260)	ug/kg	274	211	26	40	
Decachlorobiphenyl (S)	%	99	88	11		
Tetrachloro-m-xylene (S)	%	89	82	9		

SAMPLE DUPLICATE: 1653814

Parameter	Units	40148671004 Result	Dup Result	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<11.4	<11.4		40	
PCB-1221 (Aroclor 1221)	ug/kg	<11.4	<11.4		40	
PCB-1232 (Aroclor 1232)	ug/kg	<11.4	<11.4		40	
PCB-1242 (Aroclor 1242)	ug/kg	<11.4	<11.4		40	
PCB-1248 (Aroclor 1248)	ug/kg	21.8J	26.7J		40	
PCB-1254 (Aroclor 1254)	ug/kg	31.3J	39.2J		40	
PCB-1260 (Aroclor 1260)	ug/kg	65.8	84.4	25	40	
Decachlorobiphenyl (S)	%	71	89	22		
Tetrachloro-m-xylene (S)	%	67	80	17		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40148598

QC Batch: 282285 Analysis Method: Pace Lipid
QC Batch Method: Pace Lipid Analysis Description: LIPID
Associated Lab Samples: 40148598001, 40148598002, 40148598003, 40148598004, 40148598005

METHOD BLANK: 1653924 Matrix: Tissue
Associated Lab Samples: 40148598001, 40148598002, 40148598003, 40148598004, 40148598005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lipid	%	<0.030	0.030	0.030	03/07/18 06:41	

MATRIX SPIKE SAMPLE: 1682000

Parameter	Units	40148598005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lipid	%	2.7		2.5			

SAMPLE DUPLICATE: 1653927

Parameter	Units	40148598005 Result	Dup Result	RPD	Max RPD	Qualifiers
Lipid	%	2.7	2.1	25	40	

SAMPLE DUPLICATE: 1653928

Parameter	Units	40148671004 Result	Dup Result	RPD	Max RPD	Qualifiers
Lipid	%	1.6	2.2	27	40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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PCB - FORM III SVOA-1

TISSUE LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Green Bay
Date Extracted: 03/02/2018
Instrument: 40GCSK
Lab File ID: 030718.B\030718013.D

Lab Sample ID: 1653811LCS
Date Analyzed (1): 03/07/2018
LCS Lot No: 182336
SDG No.: 40148598

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
PCB-1242 (Aroclor 1242)	250	228	91	70-130

Spike Recovery: 0 out of 1 outside limits.

SAMPLE NO.

MS

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay Contract: HUDSON RIVER REMEDIAL ACTION M

Date Received: 04/19/2017 09:30 Matrix: Tissue SDG No.: 40148598

Date Extracted: 03/02/2018 06:50 Lab Sample ID: 1653812

Date Analyzed: 03/07/2018 15:02 Lab File ID: 030718.B\030718015.D

Initial wt/vol: 9.9892 g Final wt/vol: 5 mL Dilution: 2 Instrument: 40GCSK Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	<22.8	U
11104-28-2	PCB-1221 (Aroclor 1221)	<22.8	U
11141-16-5	PCB-1232 (Aroclor 1232)	<22.8	U
53469-21-9	PCB-1242 (Aroclor 1242)	313	
12672-29-6	PCB-1248 (Aroclor 1248)	382	
11097-69-1	PCB-1254 (Aroclor 1254)	267	
11096-82-5	PCB-1260 (Aroclor 1260)	262	

PCB - FORM III SVOA-1

TISSUE SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Green Bay
Date Extracted: 03/02/2018
Instrument: 40GCSK
Parent Sample ID: TZ1-170418-01-STB-01

Matrix Spike - Sample No: 1653812MS
Date Analyzed (1): 03/07/2018
Lab File ID: 030718.B\030718015.D
SDG No.: 40148598

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
PCB-1242 (Aroclor 1242)	250	<22.8	313	125	70-130

✓ ✓

57 102%

(refer to recalc spreadsheet)

Spike Recovery: 0 out of 1 outside limits.

04/27/2018 9:33

Sample TZ1-170418-01-STB-01

Wt = 10.016 **DF =** 2

		Area	*Avg CF*	On Column	Peak Result	Aroclor Result
A1242	PCB-6	123299	*2535757.250*	0.05	49	**57** ug/kg
	PCB-7	143105	*2567918.200*	0.06	56	
	PCB-8	661114	*7622055.100*	0.09	87	
	PCB-9	143477	*3224394.900*	0.04	44	
	PCB-10	107510	*2170022.350*	0.05	49	
				(Area / Avg CF)	(On Column * DF * 5000/Wt)	(Avg of 5 Peak Results)

Recalc MS %Rec

Spike Added	250 ug/kg
Sample Conc.	57 ug/kg
MS Conc.	313 ug/kg
MS %Rec	**102%**

SAMPLE NO.

DUP

PCB - FORM I SVOA-1
SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay
Contract: HUDSON RIVER REMEDIAL ACTION M
Date Received: 04/19/2017 09:30
Matrix: Tissue SDG No.: 40148598
Date Extracted: 03/02/2018 06:50
Lab Sample ID: 1653813
Date Analyzed: 03/07/2018 16:39
Lab File ID: 030718.B\030718027.D
Initial wt/vol: 9.9969 g Final wt/vol: 5 mL Dilution: 2
Instrument: 40GCSK Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	<22.8	U
11104-28-2	PCB-1221 (Aroclor 1221)	<22.8	U
11141-16-5	PCB-1232 (Aroclor 1232)	<22.8	U
53469-21-9	PCB-1242 (Aroclor 1242)	<22.8	U
12672-29-6	PCB-1248 (Aroclor 1248)	176	
11097-69-1	PCB-1254 (Aroclor 1254)	195	
11096-82-5	PCB-1260 (Aroclor 1260)	211	

Needs updated raw data

Received : validated 6/1/18

04/27/2018 9:34

PCB - FORM III SVOA-2

TISSUE SEMI-VOLATILE SAMPLE/DUPLICATE RECOVERY

Lab Name: Pace Analytical - Green Bay
Date Extracted: 03/02/2018
Instrument 40GCSK
Lab Sample ID: TZ1-170418-01-STB-01

Duplicate Sample No: 40148598005DUP
Date Analyzed: 03/07/2018
Lab File ID: 030718.B\030718027.D
SDG No.: 40148598

COMPOUND	SAMPLE CONCENTRATION (ug/kg)	DUPLICATE CONCENTRATION (ug/kg)	RPD	RPD LIMITS
PCB-1016 (Aroclor 1016)	<22.8	<22.8		0-40
PCB-1221 (Aroclor 1221)	<22.8	<22.8		0-40
PCB-1232 (Aroclor 1232)	<22.8	<22.8		0-40
PCB-1242 (Aroclor 1242)	<22.8	<22.8		0-40
PCB-1248 (Aroclor 1248)	229	176	26	0-40
PCB-1254 (Aroclor 1254)	253	195	26	0-40
PCB-1260 (Aroclor 1260)	274	211	26	0-40

RPD: 0 out of 3 outside limits.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSK GC Column: Col 2 SDG No.: 40148598

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 11:50 19:23

LAB FILE ID

CAL1A = 030618.B\030618055.D CAL1B = 030618.B\030618019.D CAL1C = 030618.B\030618043.D

CAL1D = 030618.B\030618031.D CAL1F = 030618.B\030618007.D CAL2A = 030618.B\030618057.D

CAL2B = 030618.B\030618021.D CAL2C = 030618.B\030618045.D CAL2D = 030618.B\030618033.D

CAL2F = 030618.B\030618009.D CAL3A = 030618.B\030618059.D CAL3B = 030618.B\030618023.D

CAL3C = 030618.B\030618047.D CAL3D = 030618.B\030618035.D CAL3F = 030618.B\030618011.D

CAL4A = 030618.B\030618061.D CAL4B = 030618.B\030618025.D CAL4C = 030618.B\030618049.D

CAL4D = 030618.B\030618037.D CAL4F = 030618.B\030618013.D CAL5A = 030618.B\030618063.D

CAL5B = 030618.B\030618027.D CAL5C = 030618.B\030618051.D CAL5D = 030618.B\030618039.D

CAL5F = 030618.B\030618015.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5
Aroclor 1016	1	Averaged	3274960.00	3269125.00	2967228.00	2876502.50	2833165.00
Aroclor 1016	2	Averaged	3332330.00	3269300.00	3041946.00	2965638.75	2917635.00
Aroclor 1016	3	Averaged	10034310.0	9782660.00	9019746.00	8890233.75	8852360.00
Aroclor 1016	4	Averaged	4266510.00	4178970.00	3846018.00	3738796.25	3709517.00
Aroclor 1016	5	Averaged	2849090.00	2749005.00	2570538.00	2549456.25	2519627.00
Aroclor 1221	1	Averaged	1110420.00	1103425.00	945020.000	910096.250	903333.000
Aroclor 1221	2	Averaged	628250.000	597435.000	497196.000	475523.750	476187.000
Aroclor 1221	3	Averaged	1569240.00	1512205.00	1331512.00	1308573.75	1318154.00
Aroclor 1221	4	Averaged	1215040.00	1160490.00	1042040.00	1042850.00	1086008.00
Aroclor 1221	5	Averaged	3715370.00	3661410.00	3215342.00	3095605.00	3118782.00
Aroclor 1242	1	Averaged	2772040.00	2679645.00	2557954.00	2351651.25	2317496.00
Aroclor 1242	2	Averaged	2806130.00	2680745.00	2580668.00	2393405.00	2378643.00
Aroclor 1242	3	Averaged	8271950.00	8044450.00	7576140.00	7104127.50	7113608.00
Aroclor 1242	4	Averaged	3466350.00	3409535.00	3231120.00	3013197.50	3001772.00
Aroclor 1242	5	Averaged	2413760.00	2226755.00	2158228.00	2024763.75	2026605.00
Aroclor 1248	1	Averaged	2682600.00	2616675.00	2492950.00	2322222.50	2301058.00
Aroclor 1248	2	Averaged	4852200.00	4733360.00	4356412.00	4215287.50	4121810.00
Aroclor 1248	3	Averaged	2221540.00	2207835.00	2183646.00	2072852.50	2072505.00
Aroclor 1248	4	Averaged	6082770.00	5910720.00	5645056.00	5290598.75	5270595.00
Aroclor 1248	5	Averaged	4085740.00	4082825.00	3960156.00	3781821.25	3798047.00
Aroclor 1254	1	Averaged	6289850.00	6108865.00	5620860.00	5224048.75	5183400.00
Aroclor 1254	2	Averaged	5008700.00	4969335.00	4691654.00	4432146.25	4413390.00
Aroclor 1254	3	Averaged	9464310.00	9078570.00	8491582.00	8088543.75	7970155.00
Aroclor 1254	4	Averaged	5516070.00	5619905.00	5413152.00	5154030.00	5149284.00
Aroclor 1254	5	Averaged	7899580.00	7830800.00	7303862.00	6896545.00	6825769.00
Aroclor 1260	1	Averaged	10586190.0	10245735.0	9520516.00	9316422.50	9314568.00
Aroclor 1260	2	Averaged	12483220.0	11815745.0	11226176.0	10958355.0	10961506.0
Aroclor 1260	3	Averaged	5800280.00	5722275.00	5488182.00	5335001.25	5359146.00
Aroclor 1260	4	Averaged	3583250.00	3572920.00	3347800.00	3174366.25	3180579.00

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 9:33

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSK GC Column: Col 2 SDG No.: 40148598

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 11:50 19:23

LAB FILE ID

CAL1A = 030618.B\030618055.D CAL1B = 030618.B\030618019.D CAL1C = 030618.B\030618043.D

CAL1D = 030618.B\030618031.D CAL1F = 030618.B\030618007.D CAL2A = 030618.B\030618057.D

CAL2B = 030618.B\030618021.D CAL2C = 030618.B\030618045.D CAL2D = 030618.B\030618033.D

CAL2F = 030618.B\030618009.D CAL3A = 030618.B\030618059.D CAL3B = 030618.B\030618023.D

CAL3C = 030618.B\030618047.D CAL3D = 030618.B\030618035.D CAL3F = 030618.B\030618011.D

CAL4A = 030618.B\030618061.D CAL4B = 030618.B\030618025.D CAL4C = 030618.B\030618049.D

CAL4D = 030618.B\030618037.D CAL4F = 030618.B\030618013.D CAL5A = 030618.B\030618063.D

CAL5B = 030618.B\030618027.D CAL5C = 030618.B\030618051.D CAL5D = 030618.B\030618039.D

CAL5F = 030618.B\030618015.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5
Aroclor 1260	5	Averaged	3282580.00	3215065.00	3088340.00	2957420.00	2956178.00
Decachlorobiphenyl (S)		Averaged	145696800.	133321250.	127203300.	119834370.	118476320.
Tetrachloro-m-xylene		Averaged	123159700.	120374450.	114832240.	116479950.	117270820.

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 9:33

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSK GC Column: Col 2 SDG No.: 40148598

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 11:50 19:23

LAB FILE ID

CAL1A =	030618.B\030618055.D	CAL1B =	030618.B\030618019.D	CAL1C =	030618.B\030618043.D
CAL1D =	030618.B\030618031.D	CAL1F =	030618.B\030618007.D	CAL2A =	030618.B\030618057.D
CAL2B =	030618.B\030618021.D	CAL2C =	030618.B\030618045.D	CAL2D =	030618.B\030618033.D
CAL2F =	030618.B\030618009.D	CAL3A =	030618.B\030618059.D	CAL3B =	030618.B\030618023.D
CAL3C =	030618.B\030618047.D	CAL3D =	030618.B\030618035.D	CAL3F =	030618.B\030618011.D
CAL4A =	030618.B\030618061.D	CAL4B =	030618.B\030618025.D	CAL4C =	030618.B\030618049.D
CAL4D =	030618.B\030618037.D	CAL4F =	030618.B\030618013.D	CAL5A =	030618.B\030618063.D
CAL5B =	030618.B\030618027.D	CAL5C =	030618.B\030618051.D	CAL5D =	030618.B\030618039.D
CAL5F =	030618.B\030618015.D				

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	7.01			3044196.10	
Aroclor 1016	2	Averaged	5.96			3105369.95	
Aroclor 1016	3	Averaged	5.92			9315861.95	
Aroclor 1016	4	Averaged	6.52			3947962.25	
Aroclor 1016	5	Averaged	5.43			2647543.25	
Aroclor 1221	1	Averaged	10.44			994458.85	
Aroclor 1221	2	Averaged	13.55 ✓			534918.35 ✓	
Aroclor 1221	3	Averaged	8.74			1407936.95	
Aroclor 1221	4	Averaged	6.87			1109285.60	
Aroclor 1221	5	Averaged	9.00			3361301.80	
Aroclor 1242	1	Averaged	7.85			2535757.25	
Aroclor 1242	2	Averaged	7.17			2567918.20	
Aroclor 1242	3	Averaged	6.97			7622055.10	
Aroclor 1242	4	Averaged	6.70			3224394.90	
Aroclor 1242	5	Averaged	7.44			2170022.35	
Aroclor 1248	1	Averaged	6.88 ✓			2483101.10 ✓	
Aroclor 1248	2	Averaged	7.21			4455813.90	
Aroclor 1248	3	Averaged	3.41			2151675.70	
Aroclor 1248	4	Averaged	6.44			5639947.95	
Aroclor 1248	5	Averaged	3.74			3941717.85	
Aroclor 1254	1	Averaged	8.85			5685404.75	
Aroclor 1254	2	Averaged	6.03 ✓			4703045.05 ✓	
Aroclor 1254	3	Averaged	7.43			8618632.15	
Aroclor 1254	4	Averaged	3.96			5370488.20	
Aroclor 1254	5	Averaged	6.85			7351311.20	
Aroclor 1260	1	Averaged	5.96			9796686.30	
Aroclor 1260	2	Averaged	5.71 ✓			11489000.40 ✓	
Aroclor 1260	3	Averaged	3.81			5540976.85	
Aroclor 1260	4	Averaged	5.95			3371783.05	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

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04/27/2018 9:33

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSK GC Column: Col 2 SDG No.: 40148598

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 11:50 19:23

LAB FILE ID

CAL1A =	030618.B\030618055.D	CAL1B =	030618.B\030618019.D	CAL1C =	030618.B\030618043.D
CAL1D =	030618.B\030618031.D	CAL1F =	030618.B\030618007.D	CAL2A =	030618.B\030618057.D
CAL2B =	030618.B\030618021.D	CAL2C =	030618.B\030618045.D	CAL2D =	030618.B\030618033.D
CAL2F =	030618.B\030618009.D	CAL3A =	030618.B\030618059.D	CAL3B =	030618.B\030618023.D
CAL3C =	030618.B\030618047.D	CAL3D =	030618.B\030618035.D	CAL3F =	030618.B\030618011.D
CAL4A =	030618.B\030618061.D	CAL4B =	030618.B\030618025.D	CAL4C =	030618.B\030618049.D
CAL4D =	030618.B\030618037.D	CAL4F =	030618.B\030618013.D	CAL5A =	030618.B\030618063.D
CAL5B =	030618.B\030618027.D	CAL5C =	030618.B\030618051.D	CAL5D =	030618.B\030618039.D
CAL5F =	030618.B\030618015.D				

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1260	5	Averaged	4.77			3099916.60	
Decachlorobiphenyl (S)		Averaged	8.63			128906408.0	
Tetrachloro-m-xylene		Averaged	2.80			118423432.0	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSK GC Column: Col 2 SDG No.: 40148598

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 11:50 19:23

LAB FILE ID

CAL1A =	030618.B\030618055.D	CAL1B =	030618.B\030618019.D	CAL1C =	030618.B\030618043.D
CAL1D =	030618.B\030618031.D	CAL1F =	030618.B\030618007.D	CAL2A =	030618.B\030618057.D
CAL2B =	030618.B\030618021.D	CAL2C =	030618.B\030618045.D	CAL2D =	030618.B\030618033.D
CAL2F =	030618.B\030618009.D	CAL3A =	030618.B\030618059.D	CAL3B =	030618.B\030618023.D
CAL3C =	030618.B\030618047.D	CAL3D =	030618.B\030618035.D	CAL3F =	030618.B\030618011.D
CAL4A =	030618.B\030618061.D	CAL4B =	030618.B\030618025.D	CAL4C =	030618.B\030618049.D
CAL4D =	030618.B\030618037.D	CAL4F =	030618.B\030618013.D	CAL5A =	030618.B\030618063.D
CAL5B =	030618.B\030618027.D	CAL5C =	030618.B\030618051.D	CAL5D =	030618.B\030618039.D
CAL5F =	030618.B\030618015.D				

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	RT	RT WINDOW	
								FROM	TO
Aroclor 1016	1	3.398	3.397	3.396	3.397	3.397	3.397	3.363	3.431
Aroclor 1016	2	3.594	3.596	3.595	3.595	3.594	3.595	3.561	3.629
Aroclor 1016	3	3.91	3.91	3.91	3.91	3.91	3.91	3.876	3.944
Aroclor 1016	4	4.014	4.014	4.013	4.013	4.013	4.013	3.979	4.047
Aroclor 1016	5	4.079	4.079	4.079	4.079	4.079	4.079	4.045	4.113
Aroclor 1221	1	1.854	1.854	1.854	1.854	1.854	1.853	1.819	1.887
Aroclor 1221	2	2.471	2.472	2.474	2.473	2.473	2.472	2.438	2.506
Aroclor 1221	3	2.759	2.76	2.76	2.759	2.759	2.76	2.726	2.794
Aroclor 1221	4	2.862	2.862	2.862	2.861	2.862	2.862	2.828	2.896
Aroclor 1221	5	2.925	2.925	2.925	2.925	2.925	2.926	2.892	2.96
Aroclor 1242	1	3.397	3.397	3.397	3.397	3.398	3.398	3.364	3.432
Aroclor 1242	2	3.596	3.596	3.595	3.595	3.596	3.596	3.562	3.63
Aroclor 1242	3	3.91	3.911	3.91	3.91	3.911	3.91	3.876	3.944
Aroclor 1242	4	4.013	4.014	4.014	4.014	4.013	4.013	3.979	4.047
Aroclor 1242	5	4.079	4.08	4.08	4.079	4.079	4.08	4.046	4.114
Aroclor 1248	1	4.347	4.345	4.346	4.346	4.346	4.347	4.313	4.381
Aroclor 1248	2	4.633	4.633	4.632	4.632	4.632	4.632	4.598	4.666
Aroclor 1248	3	4.901	4.9	4.9	4.9	4.9	4.9	4.866	4.934
Aroclor 1248	4	4.966	4.967	4.966	4.966	4.966	4.967	4.933	5.001
Aroclor 1248	5	5.127	5.126	5.126	5.126	5.125	5.127	5.093	5.161
Aroclor 1254	1	5.25	5.25	5.249	5.249	5.249	5.249	5.215	5.283
Aroclor 1254	2	5.496	5.495	5.495	5.495	5.494	5.496	5.462	5.53
Aroclor 1254	3	5.598	5.598	5.598	5.598	5.597	5.598	5.564	5.632
Aroclor 1254	4	6.117	6.116	6.115	6.115	6.115	6.117	6.083	6.151
Aroclor 1254	5	6.388	6.388	6.387	6.388	6.387	6.388	6.354	6.422
Aroclor 1260	1	6.388	6.389	6.389	6.389	6.387	6.388	6.354	6.422
Aroclor 1260	2	7.093	7.093	7.092	7.093	7.092	7.092	7.058	7.126
Aroclor 1260	3	7.341	7.339	7.34	7.34	7.34	7.34	7.306	7.374

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 9:33

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSK GC Column: Col 2 SDG No.: 40148598

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 11:50 19:23

LAB FILE ID

CAL1A = 030618.B\030618055.D CAL1B = 030618.B\030618019.D CAL1C = 030618.B\030618043.D

CAL1D = 030618.B\030618031.D CAL1F = 030618.B\030618007.D CAL2A = 030618.B\030618057.D

CAL2B = 030618.B\030618021.D CAL2C = 030618.B\030618045.D CAL2D = 030618.B\030618033.D

CAL2F = 030618.B\030618009.D CAL3A = 030618.B\030618059.D CAL3B = 030618.B\030618023.D

CAL3C = 030618.B\030618047.D CAL3D = 030618.B\030618035.D CAL3F = 030618.B\030618011.D

CAL4A = 030618.B\030618061.D CAL4B = 030618.B\030618025.D CAL4C = 030618.B\030618049.D

CAL4D = 030618.B\030618037.D CAL4F = 030618.B\030618013.D CAL5A = 030618.B\030618063.D

CAL5B = 030618.B\030618027.D CAL5C = 030618.B\030618051.D CAL5D = 030618.B\030618039.D

CAL5F = 030618.B\030618015.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	RT	RT WINDOW	
								FROM	TO
Aroclor 1260	4	7.531	7.531	7.531	7.531	7.531	7.531	7.497	7.565
Aroclor 1260	5	7.989	7.989	7.988	7.988	7.988	7.988	7.954	8.022
Decachlorobiphenyl (S)		8.66	8.66	8.659	8.661	8.66	8.66	8.626	8.694
Tetrachloro-m-xylene		2.551	2.551	2.55	2.551	2.551	2.55	2.516	2.584

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 9:33

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSK GC Column: Col 2 SDG No.: 40148598

Calibration Date(s): 03/06/2018 Calibration Time(s): 11:34

LAB FILE ID

CAL3S = 030618.B\030618005.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.5	1	2.924	2.89	2.958	2730104.00
Aroclor 1232	.5	2	3.595	3.562	3.63	1438576.00
Aroclor 1232	.5	3	3.91	3.876	3.944	4258826.00
Aroclor 1232	.5	4	4.013	3.979	4.047	1806102.00
Aroclor 1232	.5	5	4.08	4.046	4.114	1209090.00

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB Low Level Calibration % Difference Check

Lab Name: Pace Analytical - Green Bay
Instrument ID: 40GCSK
Calibration Date: 3/6/2018

Aroclor	True Value	Abundance Concentration	% Difference	Acceptance Criteria %	Pass/Fail
AR1221-CAL1	.1	0.112126	12.126	20	Pass
AR1242-CAL1	.1	0.109171	9.171	20	Pass
AR1248-CAL1	.1	0.106336	6.336	20	Pass
AR1254-CAL1	.1	0.107422	7.422	20	Pass
AR1016-CAL1	.1	0.107656	7.656	20	Pass
AR1260-CAL1	.1	0.106711	6.711	20	Pass

SAMPLE NO.

10758175ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 19:55

Instrument ID: 40GCSK GC Column: Col 2 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618067.D Init. Calib. Time(s): 11:34 19:23

SDG No.: 40148598

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1221	1	Averaged	1.855	1.819	1.887	994458.850	1028912.00	3.4645
Aroclor 1221	2	Averaged	2.473	2.438	2.506	534918.350	534684.000	-0.0438
Aroclor 1221	3	Averaged	2.759	2.726	2.794	1407936.95	1424282.00	1.1609
Aroclor 1221	4	Averaged	2.862	2.828	2.896	1109285.60	1107376.00	-0.1721
Aroclor 1221	5	Averaged	2.925	2.892	2.96	3361301.80	3490914.00	3.8560
Decachlorobiphenyl (S)		Averaged	8.659	8.626	8.694	128906408.	128279220.	-0.4865
Tetrachloro-m-xylene		Averaged	2.551	2.516	2.584	118423432.	114868540.	-3.0018

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 9:35

SAMPLE NO.

10758178ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 20:11

Instrument ID: 40GCSK GC Column: Col 2 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618069.D Init. Calib. Time(s): 11:34 19:23

SDG No.: 40148598

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1242	1	Averaged	3.397	3.364	3.432	2535757.25	2523920.00	-0.4668
Aroclor 1242	2	Averaged	3.595	3.562	3.63	2567918.20	2578394.00	0.4079
Aroclor 1242	3	Averaged	3.91	3.876	3.944	7622055.10	7476474.00	-1.9100
Aroclor 1242	4	Averaged	4.013	3.979	4.047	3224394.90	3221522.00	-0.0891
Aroclor 1242	5	Averaged	4.079	4.046	4.114	2170022.35	2161114.00	-0.4105
Decachlorobiphenyl (S)		Averaged	8.66	8.626	8.694	128906408.	121118560.	-6.0415
Tetrachloro-m-xylene		Averaged	2.551	2.516	2.584	118423432.	111520360.	-5.8291

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 9:33

SAMPLE NO.

10758173ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 20:27

Instrument ID: 40GCSK GC Column: Col 2 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618071.D Init. Calib. Time(s): 11:34 19:23

SDG No.: 40148598

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1248	1	Averaged	4.346	4.313	4.381	2483101.10	2471852.00	-0.4530
Aroclor 1248	2	Averaged	4.632	4.598	4.666	4455813.90	4407412.00	-1.0863
Aroclor 1248	3	Averaged	4.899	4.866	4.934	2151675.70	2224258.00	3.3733
Aroclor 1248	4	Averaged	4.966	4.933	5.001	5639947.95	5657272.00	0.3072
Aroclor 1248	5	Averaged	5.125	5.093	5.161	3941717.85	4067778.00	3.1981
Decachlorobiphenyl (S)		Averaged	8.66	8.626	8.694	128906408.	120922260.	-6.1938
Tetrachloro-m-xylene		Averaged	2.551	2.516	2.584	118423432.	112456780.	-5.0384

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 9:36

SAMPLE NO.

10758177ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 20:44

Instrument ID: 40GCSK GC Column: Col 2 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618073.D Init. Calib. Time(s): 11:34 19:23

SDG No.: 40148598

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1254	1	Averaged	5.249	5.215	5.283	5685404.75	5161976.00	-9.2065
Aroclor 1254	2	Averaged	5.495	5.462	5.53	4703045.05	4301472.00	-8.5386
Aroclor 1254	3	Averaged	5.598	5.564	5.632	8618632.15	7592956.00	-11.9007
Aroclor 1254	4	Averaged	6.116	6.083	6.151	5370488.20	4864896.00	-9.4143
Aroclor 1254	5	Averaged	6.388	6.354	6.422	7351311.20	6941146.00	-5.5795
Decachlorobiphenyl (S)		Averaged	8.659	8.626	8.694	128906408.	122186780.	-5.2128
Tetrachloro-m-xylene		Averaged	2.55	2.516	2.584	118423432.	111665040.	-5.7070

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 9:33

SAMPLE NO.

10758166ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 21:00

Instrument ID: 40GCSK GC Column: Col 2 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618075.D Init. Calib. Time(s): 11:34 19:23

SDG No.: 40148598

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	3.396	3.363	3.431	3044196.10	3091966.00	1.5692
Aroclor 1016	2	Averaged	3.595	3.561	3.629	3105369.95	3146306.00	1.3182
Aroclor 1016	3	Averaged	3.91	3.876	3.944	9315861.95	9332072.00	0.1740
Aroclor 1016	4	Averaged	4.013	3.979	4.047	3947962.25	3961404.00	0.3405
Aroclor 1016	5	Averaged	4.079	4.045	4.113	2647543.25	2657106.00	0.3612
Aroclor 1260	1	Averaged	6.388	6.354	6.422	9796686.30	9179102.00	-6.3040
Aroclor 1260	2	Averaged	7.092	7.058	7.126	11489000.4	11680202.0	1.6642
Aroclor 1260	3	Averaged	7.34	7.306	7.374	5540976.85	5535608.00	-0.0969
Aroclor 1260	4	Averaged	7.53	7.497	7.565	3371783.05	3365166.00	-0.1962
Aroclor 1260	5	Averaged	7.989	7.954	8.022	3099916.60	3290370.00	6.1438
Decachlorobiphenyl (S)		Averaged	8.659	8.626	8.694	128906408.	122313980.	-5.1141
Tetrachloro-m-xylene		Averaged	2.551	2.516	2.584	118423432.	112212640.	-5.2446

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 9:35

SAMPLE NO.

10764627CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/07/2018 Time: 13:58

Instrument ID: 40GCSK GC Column: Col 2 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030718.B\030718007.D Init. Calib. Time(s): 11:34 19:23

SDG No.: 40148598

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1221	1	Averaged	1.854	1.819	1.887	994458.850	944298.000	-5.0440
Aroclor 1221	2	Averaged	2.472	2.438	2.506	534918.350	506086.000	-5.3900
Aroclor 1221	3	Averaged	2.76	2.726	2.794	1407936.95	1343000.00	-4.6122
Aroclor 1221	4	Averaged	2.862	2.828	2.896	1109285.60	1048510.00	-5.4788
Aroclor 1221	5	Averaged	2.925	2.892	2.96	3361301.80	3267952.00	-2.7772
Decachlorobiphenyl (S)		Averaged	8.659	8.626	8.694	128906408.	122121880.	-5.2631
Tetrachloro-m-xylene		Averaged	2.551	2.516	2.584	118423432.	114367240.	-3.4252

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 9:34

SAMPLE NO.

10764628CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/07/2018 Time: 17:11

Instrument ID: 40GCSK GC Column: Col 2 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030718.B\030718031.D Init. Calib. Time(s): 11:34 19:23

SDG No.: 40148598

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1232	1	Averaged	2.924	2.89	2.958	2730104.00	2733048.00	0.1078
Aroclor 1232	2	Averaged	3.594	3.562	3.63	1438576.00	1428412.00	-0.7065
Aroclor 1232	3	Averaged	3.91	3.876	3.944	4258826.00	4208026.00	-1.1928
Aroclor 1232	4	Averaged	4.013	3.979	4.047	1806102.00	1793104.00	-0.7197
Aroclor 1232	5	Averaged	4.078	4.046	4.114	1209090.00	1184526.00	-2.0316
Decachlorobiphenyl (S)		Averaged	8.659	8.626	8.694	128906408.	124486740.	-3.4286
Tetrachloro-m-xylene		Averaged	2.55	2.516	2.584	118423432.	117398500.	-0.8655

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 9:34

Pace Analytical Prep Log Report

Batch Information: OEXT 282250 PCB-B

Template Version: F-GB-O-113-Rev.03 (19Feb2018)

Prep Method	EPA 3541
Spiked By	AMC
Instrument	40BALL
Hexane	188917
H2SO4 - Conc.	179361
Reviewed By Date	03/28/2018 16:09

Analysis Method	EPA 8082A Mod
Spiked By Date/Time	03/02/2018 06:50:12:008
Conc. Temp #1	40
Sodium Sulfate	186889
Acid 3665A Date/Initials	3/5/18 AMC
Batch Notes	Hex/Ace 50:50-190415

Extracted By	AMC
Witnessed By	BLM
Conc. Temp #2	40
Florisil	186910
Tuna	None Added

Extracted Date/Time	03/02/2018 06:50:10:904
Witnessed By Date/Time	03/02/2018 06:50:12:008
Methylene Chloride	None Added
3620B Date/Initials	3/5/18 AMC
Reviewed By	CAH

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Volume Delivered (mL)	Sample Notes	8081-SS (mL)	AR1242-SPK (mL)
8082A TNYP	BLANK	**1653810**	10	5	3		189973 (.25)	
8082A TNYP	LCS	**1653811**	10	5	3		189973 (.25)	182336 (.125)
8082A TNYP	PS	**40148598001**	10.0375	5	3		189973 (.25)	
8082A TNYP	PS	**40148598002**	9.9964	5	3		189973 (.25)	
8082A TNYP	PS	**40148598003**	10.0303	5	3		189973 (.25)	
8082A TNYP	PS	**40148598004**	10.0362	5	3		189973 (.25)	
8082A TNYP	RQS	**40148598005**	10.0161	5	3		189973 (.25)	
8082A TNYP	MS	**1653812**	9.9892	5	3		189973 (.25)	182336 (.125)
8082A TNYP	DUP	**1653813**	9.9969	5	3		189973 (.25)	
8082A TNYP	PS	**40148671001**	10.0022	5	3		189973 (.25)	
8082A TNYP	PS	**40148671002**	9.9993	5	3		189973 (.25)	
8082A TNYP	PS	**40148671003**	10.0038	5	3		189973 (.25)	
8082A TNYP	RQS	**40148671004**	9.9888	5	3		189973 (.25)	
8082A TNYP	DUP	**1653814**	9.9904	5	3		189973 (.25)	
8082A TNYP	PS	**40148671005**	10.0329	5	3		189973 (.25)	
8082A TNYP	PS	**40148671006**	9.995	5	3		189973 (.25)	

Fri, 27 Apr 2018 09:34:13 -0500

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Volume Delivered (mL)	Sample Notes	8081-SS (mL)	AR1242-SPK (mL)
8082A TNYP	PS	**40148722001**	9.9867	5	3		189973 (.25)	
8082A TNYP	PS	**40148722002**	9.9641	5	3		189973 (.25)	
8082A TNYP	PS	**40148722003**	9.9603	5	3		189973 (.25)	
8082A TNYP	PS	**40148722004**	9.9858	5	3		189973 (.25)	
8082A TNYP	PS	**40148722005**	9.96	5	3		189973 (.25)	
8082A TNYP	PS	**40148722006**	10.0363	5	3		189973 (.25)	
8082A TNYP	PS	**40148722007**	10.0057	5	3		189973 (.25)	
8082A TNYP	PS	**40148722008**	9.9787	5	3		189973 (.25)	

Standard Notes:

182336: Ar1242 Spike @20ug/mL 40GCS9. **189973: Pest/PCB Surrogate Spike 40GCSC.**

Fri, 27 Apr 2018 09:34:13 -0500

Sequence Name: C:\msdchem\1\sequence\030618.s
Comment:
Operator: BLM
Data Path: C:\MSDCHEM\1\DATA\030618\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info
1)	Unlinked		
2)	RearSamp	1	prime
	Datafile		030618001
	Method		GEBIOTA2017
3)	Sample	2	prime
	Datafile		030618002
	Method		GEBIOTA2017
4)	RearSamp	3	HEXANE
	Datafile		030618003
	Method		GEBIOTA2017
5)	Sample	4	HEXANE
	Datafile		030618004
	Method		GEBIOTA2017
6)	RearSamp	5	1232-CAL3S,185539:1,17499,NSA
	Datafile		030618005
	Method		GEBIOTA2017
7)	Sample	4	HEXANE
	Datafile		030618006
	Method		GEBIOTA2017
8)	RearSamp	6	1221-CAL1F,188138:1,17499,NSA
	Datafile		030618007
	Method		GEBIOTA2017
9)	Sample	5	1232-CAL3S,185539:1,17498,NSA
	Datafile		030618008
	Method		GEBIOTA2017
10)	RearSamp	7	1221-CAL2F,188139:1,17499,NSA
	Datafile		030618009
	Method		GEBIOTA2017
11)	Sample	6	1221-CAL1F,188138:1,17498,NSA
	Datafile		030618010
	Method		GEBIOTA2017
12)	RearSamp	8	1221-CAL3F,185538:1,17499,NSA
	Datafile		030618011
	Method		GEBIOTA2017
13)	Sample	7	1221-CAL2F,188139:1,17498,NSA
	Datafile		030618012
	Method		GEBIOTA2017
14)	RearSamp	9	1221-CAL4F,188140:1,17499,NSA
	Datafile		030618013
	Method		GEBIOTA2017
15)	Sample	8	1221-CAL3F,185538:1,17498,NSA
	Datafile		030618014
	Method		GEBIOTA2017
16)	RearSamp	10	1221-CAL5F,188141:1,17499,NSA
	Datafile		030618015
	Method		GEBIOTA2017
17)	Sample	9	1221-CAL4F,188140:1,17498,NSA
	Datafile		030618016
	Method		GEBIOTA2017
18)	RearSamp	11	HEXANE
	Datafile		030618017
	Method		GEBIOTA2017
19)	Sample	10	1221-CAL5F,188141:1,17498,NSA
	Datafile		030618018
	Method		GEBIOTA2017
20)	RearSamp	12	1242-CAL1B,188132:1,17499,NSA

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	Datafile		030618019
	Method		GEBIOTA2017
21)	Sample	11	HEXANE
	Datafile		030618020
	Method		GEBIOTA2017
22)	RearSamp	13	1242-CAL2B,185543:1,17499,NSA
	Datafile		030618021
	Method		GEBIOTA2017
23)	Sample	12	1242-CAL1B,188132:1,17498,NSA
	Datafile		030618022
	Method		GEBIOTA2017
24)	RearSamp	14	1242-CAL3B,185544:1,17499,NSA
	Datafile		030618023
	Method		GEBIOTA2017
25)	Sample	13	1242-CAL2B,185543:1,17498,NSA
	Datafile		030618024
	Method		GEBIOTA2017
26)	RearSamp	15	1242-CAL4B,185545:1,17499,NSA
	Datafile		030618025
	Method		GEBIOTA2017
27)	Sample	14	1242-CAL3B,185544:1,17498,NSA
	Datafile		030618026
	Method		GEBIOTA2017
28)	RearSamp	16	1242-CAL5B,185546:1,17499,NSA
	Datafile		030618027
	Method		GEBIOTA2017
29)	Sample	15	1242-CAL4B,185545:1,17498,NSA
	Datafile		030618028
	Method		GEBIOTA2017
30)	RearSamp	17	HEXANE
	Datafile		030618029
	Method		GEBIOTA2017
31)	Sample	16	1242-CAL5B,185546:1,17498,NSA
	Datafile		030618030
	Method		GEBIOTA2017
32)	RearSamp	18	1248-CAL1D,188134:1,17499,NSA
	Datafile		030618031
	Method		GEBIOTA2017
33)	Sample	17	HEXANE
	Datafile		030618032
	Method		GEBIOTA2017
34)	RearSamp	19	1248-CAL2D,185548:1,17499,NSA
	Datafile		030618033
	Method		GEBIOTA2017
35)	Sample	18	1248-CAL1D,188134:1,17498,NSA
	Datafile		030618034
	Method		GEBIOTA2017
36)	RearSamp	20	1248-CAL3D,185549:1,17499,NSA
	Datafile		030618035
	Method		GEBIOTA2017
37)	Sample	19	1248-CAL2D,185548:1,17498,NSA
	Datafile		030618036
	Method		GEBIOTA2017
38)	RearSamp	21	1248-CAL4D,185550:1,17499,NSA
	Datafile		030618037
	Method		GEBIOTA2017
39)	Sample	20	1248-CAL3D,185549:1,17498,NSA
	Datafile		030618038
	Method		GEBIOTA2017
40)	RearSamp	22	1248-CAL5D,185551:1,17499,NSA
	Datafile		030618039
	Method		GEBIOTA2017
41)	Sample	21	1248-CAL4D,185550:1,17498,NSA
	Datafile		030618040
	Method		GEBIOTA2017
42)	RearSamp	23	HEXANE
	Datafile		030618041
	Method		GEBIOTA2017
43)	Sample	22	1248-CAL5D,185551:1,17498,NSA
	Datafile		030618042
	Method		GEBIOTA2017

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Signed — Date 3/7/18

Signed — Date 3/5/18

Sequence Name: C:\msdchem\1\sequence\030618.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)		RearSamp	24	1254-CAL1C,188135:1,17499,NSA		
		Datafile		030618043		
		Method			GEBIOTA2017	
45)		Sample	23	HEXANE		
		Datafile		030618044		
		Method			GEBIOTA2017	
46)		RearSamp	25	1254-CAL2C,185553:1,17499,NSA		
		Datafile		030618045		
		Method			GEBIOTA2017	
47)		Sample	24	1254-CAL1C,188135:1,17498,NSA		
		Datafile		030618046		
		Method			GEBIOTA2017	
48)		RearSamp	26	1254-CAL3C,185554:1,17499,NSA		
		Datafile		030618047		
		Method			GEBIOTA2017	
49)		Sample	25	1254-CAL2C,185553:1,17498,NSA		
		Datafile		030618048		
		Method			GEBIOTA2017	
50)		RearSamp	27	1254-CAL4C,185555:1,17499,NSA		
		Datafile		030618049		
		Method			GEBIOTA2017	
51)		Sample	26	1254-CAL3C,185554:1,17498,NSA		
		Datafile		030618050		
		Method			GEBIOTA2017	
52)		RearSamp	28	1254-CAL5C,185556:1,17499,NSA		
		Datafile		030618051		
		Method			GEBIOTA2017	
53)		Sample	27	1254-CAL4C,185555:1,17498,NSA		
		Datafile		030618052		
		Method			GEBIOTA2017	
54)		RearSamp	29	HEXANE		
		Datafile		030618053		
		Method			GEBIOTA2017	
55)		Sample	28	1254-CAL5C,185556:1,17498,NSA		
		Datafile		030618054		
		Method			GEBIOTA2017	
56)		RearSamp	30	1660-CAL1A,188136:1,17499,AR1		
		Datafile		030618055		
		Method			GEBIOTA2017	
57)		Sample	29	HEXANE		
		Datafile		030618056		
		Method			GEBIOTA2017	
58)		RearSamp	31	1660-CAL2A,185558:1,17499,AR1		
		Datafile		030618057		
		Method			GEBIOTA2017	
59)		Sample	30	1660-CAL1A,188136:1,17498,AR1		
		Datafile		030618058		
		Method			GEBIOTA2017	
60)		RearSamp	32	1660-CAL3A,185559:1,17499,AR1		
		Datafile		030618059		
		Method			GEBIOTA2017	
61)		Sample	31	1660-CAL2A,185558:1,17498,AR1		
		Datafile		030618060		
		Method			GEBIOTA2017	
62)		RearSamp	33	1660-CAL4A,185560:1,17499,AR1		
		Datafile		030618061		
		Method			GEBIOTA2017	
63)		Sample	32	1660-CAL3A,185559:1,17498,AR1		
		Datafile		030618062		
		Method			GEBIOTA2017	
64)		RearSamp	34	1660-CAL5A,185561:1,17499,AR1		
		Datafile		030618063		
		Method			GEBIOTA2017	
65)		Sample	33	1660-CAL4A,185560:1,17498,AR1		
		Datafile		030618064		
		Method			GEBIOTA2017	
66)		RearSamp	35	HEXANE		
		Datafile		030618065		

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Read and Understood By

Signed — Date: 3/7/18

Signed — Date: 3/9/18

	Method		GEBIOTA2017
67)	Sample	34	1660-CAL5A,185561:1,17498,AR1
	Datafile		030618066
	Method		GEBIOTA2017
68)	RearSamp	36	1221-ICV,188142:1,17499,AR122
	Datafile		030618067
	Method		GEBIOTA2017
69)	Sample	35	HEXANE
	Datafile		030618068
	Method		GEBIOTA2017
70)	RearSamp	37	1242-ICV,185562:1,17499,AR124 OK
	Datafile		030618069
	Method		GEBIOTA2017
71)	Sample	36	1221-ICV,188142:1,17498,AR122 OK
	Datafile		030618070
	Method		GEBIOTA2017
72)	RearSamp	38	1248-ICV,185563:1,17499,AR124 OK
	Datafile		030618071
	Method		GEBIOTA2017
73)	Sample	37	1242-ICV,185562:1,17498,AR124 OK
	Datafile		030618072
	Method		GEBIOTA2017
74)	RearSamp	39	1254-ICV,185564:1,17499,AR125 OK
	Datafile		030618073
	Method		GEBIOTA2017
75)	Sample	38	1248-ICV,185563:1,17498,AR124 OK
	Datafile		030618074
	Method		GEBIOTA2017
76)	RearSamp	40	1660-ICV,185565:1,17499,AR166 OK
	Datafile		030618075
	Method		GEBIOTA2017
77)	Sample	39	1254-ICV,185564:1,17498,AR125 OK
	Datafile		030618076
	Method		GEBIOTA2017
78)	RearSamp	41	1221-CRDL,188138:1,17499,RL12 OK
	Datafile		030618077
	Method		GEBIOTA2017
79)	Sample	40	1660-ICV,185565:1,17498,AR166 OK
	Datafile		030618078
	Method		GEBIOTA2017
80)	RearSamp	42	1242-CRDL,188132:1,17499,RL12 OK
	Datafile		030618079
	Method		GEBIOTA2017
81)	Sample	41	1221-CRDL,188138:1,17498,RL12 OK
	Datafile		030618080
	Method		GEBIOTA2017
82)	RearSamp	43	1248-CRDL,188134:1,17499,RL12 OK
	Datafile		030618081
	Method		GEBIOTA2017
83)	Sample	42	1242-CRDL,188132:1,17498,RL12 OK
	Datafile		030618082
	Method		GEBIOTA2017
84)	RearSamp	44	1254-CRDL,188135:1,17499,RL12 OK
	Datafile		030618083
	Method		GEBIOTA2017
85)	Sample	43	1248-CRDL,188134:1,17498,RL12 OK
	Datafile		030618084
	Method		GEBIOTA2017
86)	RearSamp	45	1660-CRDL,188136:1,17499,RL16 OK
	Datafile		030618085
	Method		GEBIOTA2017
87)	Sample	44	1254-CRDL,188135:1,17498,RL12 OK
	Datafile		030618086
	Method		GEBIOTA2017
88)	RearSamp	46	HEXANE
	Datafile		030618087
	Method		GEBIOTA2017
89)	Sample	45	1660-CRDL,188136:1,17498,RL16 OK
	Datafile		030618088
	Method		GEBIOTA2017

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Read and Understood By

Signed 3/7/18 Date

Signed 3/7/18 Date

Sequence Name: C:\msdchem\1\sequence\030718.s
Comment:
Operator: BLM
Data Path: C:\MSDCHEM\1\DATA\030718\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info	
1)	Unlinked		
2)	RearSamp	1	prime
	Datafile		030718001
	Method		GEBIOTA2017
3)	Sample	2	prime
	Datafile		030718002
	Method		GEBIOTA2017
4)	RearSamp	3	HEXANE
	Datafile		030718003
	Method		GEBIOTA2017
5)	Sample	4	HEXANE
	Datafile		030718004
	Method		GEBIOTA2017
6)	RearSamp	5	HEXANE
	Datafile		030718005
	Method		GEBIOTA2017
7)	Sample	6	HEXANE
	Datafile		030718006
	Method		GEBIOTA2017
8)	RearSamp	7	1221-CCV,185538:1,17499,AR122 ok
	Datafile		030718007
	Method		GEBIOTA2017
9)	Sample	8	1221-CCV,185538:1,17498,AR122 ok
	Datafile		030718008
	Method		GEBIOTA2017
10)	RearSamp	9	1221-CCV,185538:1,17499,AR122 ok
	Datafile		030718009
	Method		GEBIOTA2017
11)	Sample	10	1221-CCV,185538:1,17498,AR122 ok
	Datafile		030718010
	Method		GEBIOTA2017
12)	RearSamp	11	1653810,,17493,BIOTA B
	Datafile		030718011
	Method		GEBIOTA2017
13)	Sample	12	1654789,,17504,BIOTA
	Datafile		030718012
	Method		GEBIOTA2017
14)	RearSamp	13	1653811,,17493,BIOTA LCS
	Datafile		030718013
	Method		GEBIOTA2017
15)	Sample	14	1654790,,17504,BIOTA
	Datafile		030718014
	Method		GEBIOTA2017
16)	RearSamp	15	1653812 x2,,17493,BIOTA MS
	Datafile		030718015
	Method		GEBIOTA2017
17)	Sample	16	1654791,,17504,BIOTA
	Datafile		030718016
	Method		GEBIOTA2017
18)	RearSamp	17	40148598001,,17493,BIOTA
	Datafile		030718017
	Method		GEBIOTA2017
19)	Sample	18	40148722009,,17504,BIOTA
	Datafile		030718018
	Method		GEBIOTA2017
20)	RearSamp	19	40148598002,,17493,BIOTA

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```
      Datafile          030718019
      Method            GEBIOTA2017
21)   Sample      20    1654792,,17504,BIOTA
      Datafile          030718020
      Method            GEBIOTA2017
22)   RearSamp    21    40148598003,,17493,BIOTA
      Datafile          030718021
      Method            GEBIOTA2017
23)   Sample      22    40150295001,,17504,BIOTA
      Datafile          030718022
      Method            GEBIOTA2017
24)   RearSamp    23    40148598004,,17493,BIOTA
      Datafile          030718023
      Method            GEBIOTA2017
25)   Sample      24    40150295002,,17504,BIOTA
      Datafile          030718024
      Method            GEBIOTA2017
26)   RearSamp    25    40148598005 x2,,17493,BIOTA
      Datafile          030718025
      Method            GEBIOTA2017
27)   Sample      26    40150295003,,17504,BIOTA
      Datafile          030718026
      Method            GEBIOTA2017
28)   RearSamp    27    1653813 x2,,17493,BIOTA
      Datafile          030718027
      Method            GEBIOTA2017
29)   Sample      28    40150295004,,17504,BIOTA
      Datafile          030718028
      Method            GEBIOTA2017
30)   RearSamp    29    40148671001,,17493,BIOTA
      Datafile          030718029
      Method            GEBIOTA2017
31)   Sample      30    40150295005,,17504,BIOTA
      Datafile          030718030
      Method            GEBIOTA2017
32)   RearSamp    31    1232-CCV,185539:1,17499,AR123 OK
      Datafile          030718031
      Method            GEBIOTA2017
33)   Sample      32    1232-CCV,185539:1,17498,AR123 OK
      Datafile          030718032
      Method            GEBIOTA2017
34)   RearSamp    33    1232-CCV,185539:1,17499,AR123 OK
      Datafile          030718033
      Method            GEBIOTA2017
35)   Sample      34    1232-CCV,185539:1,17498,AR123 OK
      Datafile          030718034
      Method            GEBIOTA2017
36)   RearSamp    35    40148671002,,17493,BIOTA
      Datafile          030718035
      Method            GEBIOTA2017
37)   Sample      36    40150295006,,17504,BIOTA
      Datafile          030718036
      Method            GEBIOTA2017
38)   RearSamp    37    40148671003,,17493,BIOTA
      Datafile          030718037
      Method            GEBIOTA2017
39)   Sample      38    40150295007,,17504,BIOTA
      Datafile          030718038
      Method            GEBIOTA2017
40)   RearSamp    39    40148671004,,17493,BIOTA
      Datafile          030718039
      Method            GEBIOTA2017
41)   Sample      40    40150295008,,17504,BIOTA
      Datafile          030718040
      Method            GEBIOTA2017
42)   RearSamp    41    1653814,,17493,BIOTA
      Datafile          030718041
      Method            GEBIOTA2017
43)   Sample      42    40150295009,,17504,BIOTA
      Datafile          030718042
      Method            GEBIOTA2017

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```

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Signed — Date 3-8-18

Sequence Name: C:\msdchem\1\sequence\030518.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\030518\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info
1) RearSamp	1	HEXANE
Datafile		--------
Method		SCREEN2014
2) Sample	2	HEXANE
Datafile		--------
Method		SCREEN2014
3) RearSamp	3	1654574MB
Datafile		--------
Method		SCREEN2014
4) Sample	4	1654575LCS
Datafile		--------
Method		SCREEN2014
5) RearSamp	5	1654576MS
Datafile		--------
Method		SCREEN2014
6) Sample	6	1654577MSD
Datafile		--------
Method		SCREEN2014
7) RearSamp	7	40165301-001
Datafile		--------
Method		SCREEN2014
8) Sample	8	40165355-001
Datafile		--------
Method		SCREEN2014
9) RearSamp	9	40165195-001
Datafile		--------
Method		SCREEN2014
10) Sample	10	40165196-001
Datafile		--------
Method		SCREEN2014
11) RearSamp	11	40165196-002
Datafile		--------
Method		SCREEN2014
12) Sample	12	40165196-003P
Datafile		--------
Method		SCREEN2014
13) RearSamp	13	40165196-004
Datafile		--------
Method		SCREEN2014
14) Sample	14	40165196-005
Datafile		--------
Method		SCREEN2014
15) RearSamp	15	1653810MB
Datafile		--------
Method		SCREEN2014
16) Sample	16	1653811LCS
Datafile		--------
Method		SCREEN2014
17) RearSamp	17	1653812MS x2 ✓
Datafile		--------
Method		SCREEN2014
18) Sample	18	40148598-001 —
Datafile		--------
Method		SCREEN2014
19) RearSamp	19	40148598-002 —
Datafile		--------

GE BIOTA

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PROJECT 40GCSI Screens 03/05/18

Notebook No. 4418

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	Method		SCREEN2014
20)	Sample	20	40148598-003 —
	Datafile		--------
	Method		SCREEN2014
21)	RearSamp	21	40148598-004 —
	Datafile		--------
	Method		SCREEN2014
22)	Sample	22	40148598-005P/RQS x2 ✓
	Datafile		--------
	Method		SCREEN2014
23)	RearSamp	23	1653813DUP x2 ✓
	Datafile		--------
	Method		SCREEN2014
24)	Sample	24	40148671-001 —
	Datafile		--------
	Method		SCREEN2014
25)	RearSamp	25	40148671-002 —
	Datafile		--------
	Method		SCREEN2014
26)	Sample	26	40148671-003 —
	Datafile		--------
	Method		SCREEN2014
27)	RearSamp	27	40148671-004RQS —
	Datafile		--------
	Method		SCREEN2014
28)	Sample	28	1653814DUP —
	Datafile		--------
	Method		SCREEN2014
29)	RearSamp	29	40148671-005 —
	Datafile		--------
	Method		SCREEN2014
30)	Sample	30	40148671-006 —
	Datafile		--------
	Method		SCREEN2014
31)	RearSamp	31	40148722-001 —
	Datafile		--------
	Method		SCREEN2014
32)	Sample	32	40148722-002 —
	Datafile		--------
	Method		SCREEN2014
33)	RearSamp	33	40148722-003 x2
	Datafile		--------
	Method		SCREEN2014
34)	Sample	34	40148722-004 —
	Datafile		--------
	Method		SCREEN2014
35)	RearSamp	35	40148722-005 —
	Datafile		--------
	Method		SCREEN2014
36)	Sample	36	40148722-006 —
	Datafile		--------
	Method		SCREEN2014
37)	RearSamp	37	40148722-007 —
	Datafile		--------
	Method		SCREEN2014
38)	Sample	38	40148722-008 —
	Datafile		--------
	Method		SCREEN2014
39)	RearSamp	39	1655024MB
	Datafile		--------
	Method		SCREEN2014
40)	Sample	40	1655025LCS
	Datafile		--------
	Method		SCREEN2014
41)	RearSamp	41	1655026MS
	Datafile		--------
	Method		SCREEN2014
42)	Sample	42	1655027MSD
	Datafile		--------
	Method		SCREEN2014
43)	RearSamp	43	40164936-001
	Datafile		--------

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Read and Understood By

Signed — Date 3/15/18

Signed — Date 3/15/18

SAMPLE NO.

TZ1-170418-01-STB-05

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40148598 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40148598001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	1.9		%	1	03/07/2018 06:41

SAMPLE NO.

TZ1-170418-01-STB-04

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40148598 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40148598002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	0.34		%	1	03/07/2018 06:41

SAMPLE NO.

TZ1-170418-01-STB-03

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40148598 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40148598003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	1.6		%	1	03/07/2018 06:41

SAMPLE NO.

TZ1-170418-01-STB-02

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40148598 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40148598004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	4.8		%	1	03/07/2018 06:41

✓

SAMPLE NO.

TZ1-170418-01-STB-01

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40148598 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40148598005 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	2.7		%	1	03/07/2018 06:41

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Green Bay SDG No. : 40148598 Contract : HUDSON RIVER REMEDIAL ACTION M

Method Blank Matrix: Tissue Instrument ID: 40BALL

Method Blank Concentration Units: %

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1653924	C
Lipid									<0.030	U

SAMPLE NO.

1653927DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Green Bay SDG No. : 40148598 Contract: HUDSON RIVER REMEDIAL

Matrix: Tissue Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Lipid	40	2.7	2.1	25

✓

SAMPLE NO.

1653928DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Green Bay SDG No. : 40148598 Contract: HUDSON RIVER REMEDIAL

Matrix: Tissue Concentration Units: %

Percent Moisture: _____ Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Lipid	40	1.6	2.2	27

✓

Non SDG parent

Pace Analytical® Prep Log Report

Batch Information: OEXT 282285 LIPIDS

Template Version: F-GB-O-145-Rev.00 (17Feb2015) LIPID

Analysis Method	Pace Lipid	Analyzed By	AMC	Instrument	40BALL	Batch Notes	
Reviewed By	BLM	Reviewed By Date	05/01/2018 10:01				

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Lipid % Posted	Run Date/Time	ID	Sample Weight (g)	Sample Volume (mL)	Aliquot (mL)	Dish Weight (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
LIPID	BLANK	**1653924**	Y	-0.005000	03/07/2018 06:41:31		10	5	1	0.9316	0.9315	M	
LIPID	BLANK	**1653925**	Y	-0.005000	03/07/2018 06:41:31		10	5	1	0.9331	0.933	M	
LIPID	PS	**40148598001**	Y	1.863	03/07/2018 06:41:31		10.0375	5	1	0.9321	0.9695	M	
LIPID	PS	**40148598002**	Y	0.3401	03/07/2018 06:41:31		9.9964	5	1	0.9322	0.939	M	
LIPID	PS	**40148598003**	Y	1.615	03/07/2018 06:41:31		10.0303	5	1	0.9311	0.9635	M	
LIPID	PS	**40148598004**	Y	4.808	03/07/2018 06:41:31		10.0362	5	1	0.9307	1.0272	M	
LIPID	RQS	**40148598005**	Y	2.671	03/07/2018 06:41:31		10.0161	5	1	0.9313	0.9848	M	
LIPID	DUP	**1653927**	Y	2.076	03/07/2018 06:41:31		9.9969	5	1	0.9346	0.9761	M	
LIPID	PS	**40148671001**	Y	1.520	03/07/2018 06:41:31		10.0022	5	1	0.9343	0.9647	M	
LIPID	PS	**40148671002**	Y	3.880	03/07/2018 06:41:31		9.9993	5	1	0.9353	1.0129	M	
LIPID	PS	**40148671003**	Y	0.5298	03/07/2018 06:41:31		10.0038	5	1	0.9329	0.9435	M	
LIPID	RQS	**40148671004**	Y	1.647	03/07/2018 06:41:31		9.9888	5	1	0.9328	0.9657	M	
LIPID	DUP	**1653928**	Y	2.152	03/07/2018 06:41:31		9.9904	5	1	0.9365	0.9795	M	
LIPID	PS	**40148671005**	Y	1.605	03/07/2018 06:41:31		10.0329	5	1	0.9322	0.9644	M	
LIPID	PS	**40148671006**	Y	6.228	03/07/2018 06:41:31		9.995	5	1	0.9322	1.0567	M	
LIPID	PS	**40148722001**	Y	2.478	03/07/2018 06:41:31		9.9867	5	1	0.9354	0.9849	M	
LIPID	PS	**40148722002**	Y	2.118	03/07/2018 06:41:31		9.9641	5	1	0.9316	0.9738	M	
LIPID	PS	**40148722003**	Y	3.594	03/07/2018 06:41:31		9.9603	5	1	0.9331	1.0047	M	
LIPID	PS	**40148722004**	Y	2.644	03/07/2018 06:41:31		9.9858	5	1	0.9324	0.9852	M	

Pace Analytical® Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	Lipid % Posted	Run Date/Time	ID	Sample Weight (g)	Sample Volume (mL)	Aliquot (mL)	Dish Weight (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
LIPID	PS	**40148722005**	Y	2.339	03/07/2018 06:41:31		9.96	5	1	0.9329	0.9795	M	
LIPID	PS	**40148722006**	Y	2.337	03/07/2018 06:41:31		10.0363	5	1	0.9276	0.9745	M	
LIPID	PS	**40148722007**	Y	3.963	03/07/2018 06:41:31		10.0057	5	1	0.937	1.0163	M	
LIPID	PS	**40148722008**	Y	0.7466	03/07/2018 06:41:31		9.9787	5	1	0.9308	0.9457	M	
LIPID	MS	**1682000**	Y	2.478	03/07/2018 06:41:31		9.9892	5	1	.9346	0.9841	M	

40148598_Rev2

Client Name: GE
Project #: 40148598
Date/Time Removed to Thaw: 02-20-18
Date/Time Prepped: 02-21-18
Prepped by: CWN + JL + RM
Location: 40FRG21 / (Room Temperature) (circle one)

Biota Homogenization Log (NYDOH Method)

Pace Analytical™

Logbook: 4407

Sample ID	Sample Type (Fish, Eggs, etc.)	Scales/Skin Removed (Y/N)	Whole Body/Fillet (WB/F)	Picture of Fish/Weight Taken? (Y/N)	Total Fish Weight (g)	Internal Organs Intact (Y/N)	Gender (Optional) M/F/I[3]	Fillet Weight (g)	Left/Both Fillet[1]?	Container Code[2]	Picture of Jars/Weight Taken? (Y/N)	Weight of homogenized Sample (g)	Composite Sample (> 1 per Sample ID) (Y/N)	Sample Comments
1	Fish	Y	F	Y	897.6	Y	F	208.6	(Left) / Both	9AG	Y	200.9	N	Robo
2	Fish	Y	F	Y	2421.4	Y	F	528.9	(Left) / Both	32AG	Y	514.3	N	Robo
3	Fish	Y	F	Y	2763.9	Y	M	598.5	(Left) / Both	32AG	Y	576.2	N	Robo
4	Fish	Y	F	Y	4047.8	Y	M	776.9	(Left) / Both	32AG	Y	837.2	N	Robo 866.2 Fillet wt
5	Fish	Y	F	Y	5550.6	Y	M	1198.2	(Left) / Both	32AG	Y	1167.9	N	Robo 2 jars
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
					CWN 02-22-18				Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					

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(1) If left fillet weight is under 40g, the right fillet in included in the sample weight.

(2) Note Container Type / Lot # using Codes Below:

Container Code	Container Size	Lot#
2CG	2 oz Clear Glass	
4AG	4 oz Amber Glass	
9AG	9 oz Amber Glass	F-7-212-04AB
32AG	32 oz Amber Glass	J-4-338-02AB

(3) M = Male, F = Female, I = Indeterminate

Reviewed By

3/6/18
Date

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40148598

Sample: TZ1-170418-01-STB-05 **Lab ID: 40148598001** Collected: 04/18/17 17:48 Received: 04/19/17 09:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<11.4**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 15:18	12674-11-2	
PCB-1221 (Aroclor 1221)	**<11.4**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 15:18	11104-28-2	
PCB-1232 (Aroclor 1232)	**<11.4**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 15:18	11141-16-5	
PCB-1242 (Aroclor 1242)	**<11.4**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 15:18	53469-21-9	
PCB-1248 (Aroclor 1248)	**70.1**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 15:18	12672-29-6	
PCB-1254 (Aroclor 1254)	**75.1**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 15:18	11097-69-1	
PCB-1260 (Aroclor 1260)	**75.4**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 15:18	11096-82-5	
PCB, Total	**221**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 15:18	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	86	%	60-140		1	03/02/18 06:50	03/07/18 15:18	877-09-8	
Decachlorobiphenyl (S)	86	%	60-140		1	03/02/18 06:50	03/07/18 15:18	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Female**				1		02/21/18 14:53		
Lipid	Analytical Method: Pace Lipid								
Lipid	**1.9**	%	0.030	0.030	1		03/07/18 06:41		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40148598

Sample: TZ1-170418-01-STB-04 **Lab ID: 40148598002** Collected: 04/18/17 17:44 Received: 04/19/17 09:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<11.4**	ug/kg	50.0	11.4	1	03/02/18 06:50	03/07/18 15:35	12674-11-2	
PCB-1221 (Aroclor 1221)	**<11.4**	ug/kg	50.0	11.4	1	03/02/18 06:50	03/07/18 15:35	11104-28-2	
PCB-1232 (Aroclor 1232)	**<11.4**	ug/kg	50.0	11.4	1	03/02/18 06:50	03/07/18 15:35	11141-16-5	
PCB-1242 (Aroclor 1242)	**<11.4**	ug/kg	50.0	11.4	1	03/02/18 06:50	03/07/18 15:35	53469-21-9	
PCB-1248 (Aroclor 1248)	**19.0J**	ug/kg	50.0	11.4	1	03/02/18 06:50	03/07/18 15:35	12672-29-6	
PCB-1254 (Aroclor 1254)	**28.9J**	ug/kg	50.0	11.4	1	03/02/18 06:50	03/07/18 15:35	11097-69-1	
PCB-1260 (Aroclor 1260)	**28.8J**	ug/kg	50.0	11.4	1	03/02/18 06:50	03/07/18 15:35	11096-82-5	
PCB, Total	**76.7**	ug/kg	50.0	11.4	1	03/02/18 06:50	03/07/18 15:35	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	73	%	60-140		1	03/02/18 06:50	03/07/18 15:35	877-09-8	
Decachlorobiphenyl (S)	82	%	60-140		1	03/02/18 06:50	03/07/18 15:35	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Female**				1		02/21/18 14:53		
Lipid	Analytical Method: Pace Lipid								
Lipid	**0.34**	%	0.030	0.030	1		03/07/18 06:41		

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40148598

Sample: TZ1-170418-01-STB-03 **Lab ID: 40148598003** Collected: 04/18/17 17:42 Received: 04/19/17 09:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<11.4**	ug/kg	49.8	11.4	**1**	03/02/18 06:50	03/07/18 15:51	12674-11-2	
PCB-1221 (Aroclor 1221)	**<11.4**	ug/kg	49.8	11.4	**1**	03/02/18 06:50	03/07/18 15:51	11104-28-2	
PCB-1232 (Aroclor 1232)	**<11.4**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 15:51	11141-16-5	
PCB-1242 (Aroclor 1242)	**<11.4**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 15:51	53469-21-9	
PCB-1248 (Aroclor 1248)	**67.9**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 15:51	12672-29-6	
PCB-1254 (Aroclor 1254)	**86.0**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 15:51	11097-69-1	
PCB-1260 (Aroclor 1260)	**104**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 15:51	11096-82-5	
PCB, Total	**258**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 15:51	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	88	%	60-140		1	03/02/18 06:50	03/07/18 15:51	877-09-8	
Decachlorobiphenyl (S)	91	%	60-140		1	03/02/18 06:50	03/07/18 15:51	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Male**				1		02/21/18 14:53		
Lipid	Analytical Method: Pace Lipid								
Lipid	**1.6**	%	0.030	0.030	1		03/07/18 06:41		

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40148598

Sample: TZ1-170418-01-STB-02 **Lab ID: 40148598004** Collected: 04/18/17 17:40 Received: 04/19/17 09:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<11.4**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 16:07	12674-11-2	
PCB-1221 (Aroclor 1221)	**<11.4**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 16:07	11104-28-2	
PCB-1232 (Aroclor 1232)	**<11.4**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 16:07	11141-16-5	
PCB-1242 (Aroclor 1242)	**<11.4**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 16:07	53469-21-9	
PCB-1248 (Aroclor 1248)	**73.0**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 16:07	12672-29-6	
PCB-1254 (Aroclor 1254)	**94.6**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 16:07	11097-69-1	
PCB-1260 (Aroclor 1260)	**96.2**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 16:07	11096-82-5	
PCB, Total	**264**	ug/kg	49.8	11.4	1	03/02/18 06:50	03/07/18 16:07	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	102	%	60-140		1	03/02/18 06:50	03/07/18 16:07	877-09-8	
Decachlorobiphenyl (S)	95	%	60-140		1	03/02/18 06:50	03/07/18 16:07	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Male**				1		02/21/18 14:53		
Lipid	Analytical Method: Pace Lipid								
Lipid	**4.8**	%	0.030	0.030	1		03/07/18 06:41		

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40148598

Sample: TZ1-170418-01-STB-01 **Lab ID: 40148598005** Collected: 04/18/17 17:35 Received: 04/19/17 09:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<22.8**	ug/kg	99.8	22.8	2	03/02/18 06:50	03/07/18 16:23	12674-11-2	
PCB-1221 (Aroclor 1221)	**<22.8**	ug/kg	99.8	22.8	2	03/02/18 06:50	03/07/18 16:23	11104-28-2	
PCB-1232 (Aroclor 1232)	**<22.8**	ug/kg	99.8	22.8	2	03/02/18 06:50	03/07/18 16:23	11141-16-5	
PCB-1242 (Aroclor 1242)	**<22.8**	ug/kg	99.8	22.8	2	03/02/18 06:50	03/07/18 16:23	53469-21-9	
PCB-1248 (Aroclor 1248)	**229**	ug/kg	99.8	22.8	2	03/02/18 06:50	03/07/18 16:23	12672-29-6	
PCB-1254 (Aroclor 1254)	**253**	ug/kg	99.8	22.8	2	03/02/18 06:50	03/07/18 16:23	11097-69-1	
PCB-1260 (Aroclor 1260)	**274**	ug/kg	99.8	22.8	2	03/02/18 06:50	03/07/18 16:23	11096-82-5	
PCB, Total	**756**	ug/kg	99.8	22.8	2	03/02/18 06:50	03/07/18 16:23	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	89	%	60-140		2	03/02/18 06:50	03/07/18 16:23	877-09-8	
Decachlorobiphenyl (S)	99	%	60-140		2	03/02/18 06:50	03/07/18 16:23	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Male**				1		02/21/18 14:53		
Lipid	Analytical Method: Pace Lipid								
Lipid	**2.7**	%	0.030	0.030	1		03/07/18 06:41		

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B. SDG 40151542

ENVIRONMENTAL STANDARDS

ORGANIC ANALYSIS SUPPORT DOCUMENTATION

ESI project name:	GEHR RAMP	Reviewed by:	JA 5/31/18
Sample Collection Dates:	6/12/17	Approved by:	MAM 6/18
Job Number:	20115678.H000	Completion Date:	
Project Manager:	Meg Michell		
Laboratory:	Pace GB	Applicable Sample No's (X)	Refer to Table 1 in the Quality Assurance Review

			Sample No.	Lab Control No.
Deliverable:	CLP (Full)	( )	Refer to Table 1	
	Level IV (Full)	( )		
	Limited	( )		
	Other:	Full Per Phase 2 RAMP QAPP		

The following table indicates criteria that were examined, the identified problems, and support documentation attachments

	Criteria Examined in Detail (Check (√) if Yes or Footnote Letter for Comments Below)					Problems Identified (Check (√) if Yes or Footnote Letter for Comments Below)					Support Documentation Attachments (Check (√) if Yes or Footnote Letter for Comments Below)				
	8082A					8082A					8082A				
Holding Times	X										X				
Blank Analysis: Target Cmpds	X										X				
Sys Montr Cmps/Surrogates	X										X				
Matrix Spike/Matrix Spike Duplicate	X										X				
Blank Spike	X										X				
Duplicate Analysis ( ) Field (X) Lab	X										X				
Detection Limit/Sensitivity															
Qualitative Identification: Target Cmpds	X										X				
Qualitative Identification: TICs															
DFTPP & BFB Mass Tuning															
GC Instrument Performance															
Initial Calibrations	X										X				
Continuing Calibrations	X										X				
Quantitation of Results	X					X					X				
DDT/Endrin Breakdown															
Surrogate Retention Time Shifts	X										X				
Internal Standards Performance															
Resolution Check Standards															
Analytical Sequence	X										X				
Florisil Cartridge & GPC Calibration															
GC Column Agreement															
Condition Upon Receipt	X										X				
Percent Solids															
Others:															

Comments: Results < RL should be considered estimated. Total PCB results calculated with estimated Aroclor results should be considered estimated.

PCB - FORM II SVOA-1
TISSUE SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Green Bay SDG No.: 40151542 Contract: HUDSON RIVER REMEDIAL

Instrument ID: 40GCSJ

LAB SAMPLE ID	SAMPLE NAME	DCBP	TCMX
1652256	1652256BLANK	82	68
1652257	1652257LCS	83	65
1652258	1652258MS	101	79
1652259	1652259DUP	99	74
40151542001	TD4-170612-01-SMB-01	89	84
40151542002	TD3-170612-01-SMB-05	105	81
40151542003	TD3-170612-01-SMB-04	101	84
40151542004	TD3-170612-01-SMB-03	105	76
40151542005	TD3-170612-01-SMB-02	93	73
40151542006	TD3-170612-01-SMB-01	77	64

	QC LIMITS
(DCBP) = Decachlorobiphenyl (S)	(60-140)
(TCMX) = Tetrachloro-m-xylene (S)	(60-140)

* Values outside of QC Limits

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QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40151542

QC Batch: 281918 Analysis Method: EPA 8082A Mod
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 40151542001, 40151542002, 40151542003, 40151542004, 40151542005, 40151542006

METHOD BLANK: 1652256 Matrix: Tissue
Associated Lab Samples: 40151542001, 40151542002, 40151542003, 40151542004, 40151542005, 40151542006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<11.4	50.0	11.4	02/28/18 08:50	
PCB-1221 (Aroclor 1221)	ug/kg	<11.4	50.0	11.4	02/28/18 08:50	
PCB-1232 (Aroclor 1232)	ug/kg	<11.4	50.0	11.4	02/28/18 08:50	
PCB-1242 (Aroclor 1242)	ug/kg	<11.4	50.0	11.4	02/28/18 08:50	
PCB-1248 (Aroclor 1248)	ug/kg	<11.4	50.0	11.4	02/28/18 08:50	
PCB-1254 (Aroclor 1254)	ug/kg	<11.4	50.0	11.4	02/28/18 08:50	
PCB-1260 (Aroclor 1260)	ug/kg	<11.4	50.0	11.4	02/28/18 08:50	
Decachlorobiphenyl (S)	%	82	60-140		02/28/18 08:50	
Tetrachloro-m-xylene (S)	%	68	60-140		02/28/18 08:50	

LABORATORY CONTROL SAMPLE: 1652257

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<11.4			
PCB-1221 (Aroclor 1221)	ug/kg		<11.4			
PCB-1232 (Aroclor 1232)	ug/kg		<11.4			
PCB-1242 (Aroclor 1242)	ug/kg	250	215	86	70-130	
PCB-1248 (Aroclor 1248)	ug/kg		<11.4			
PCB-1254 (Aroclor 1254)	ug/kg		<11.4			
PCB-1260 (Aroclor 1260)	ug/kg		<11.4			
Decachlorobiphenyl (S)	%			83	60-140	
Tetrachloro-m-xylene (S)	%			65	60-140	

MATRIX SPIKE SAMPLE: 1652258

Parameter	Units	40151542004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<114		<114			
PCB-1221 (Aroclor 1221)	ug/kg	<114		<114			
PCB-1232 (Aroclor 1232)	ug/kg	<114		<114			
PCB-1242 (Aroclor 1242)	ug/kg	<114	249	340J	136	70-130	M1
PCB-1248 (Aroclor 1248)	ug/kg	1170		1100			
PCB-1254 (Aroclor 1254)	ug/kg	1690		1390			
PCB-1260 (Aroclor 1260)	ug/kg	970		762			
Decachlorobiphenyl (S)	%				101	60-140	
Tetrachloro-m-xylene (S)	%				79	60-140	

Refer to Form 3 for re-calc.

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40151542

SAMPLE DUPLICATE: 1652259

Parameter	Units	40151542004 Result	Dup Result	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<114	<114		40	
PCB-1221 (Aroclor 1221)	ug/kg	<114	<114		40	
PCB-1232 (Aroclor 1232)	ug/kg	<114	<114		40	
PCB-1242 (Aroclor 1242)	ug/kg	<114	<114		40	
PCB-1248 (Aroclor 1248)	ug/kg	1170	888	28	40	
PCB-1254 (Aroclor 1254)	ug/kg	1690	1270	28	40	
PCB-1260 (Aroclor 1260)	ug/kg	970	708	31	40	
Decachlorobiphenyl (S)	%	105	99	6		
Tetrachloro-m-xylene (S)	%	76	74	3		

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QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40151542

QC Batch: 281922 Analysis Method: Pace Lipid
QC Batch Method: Pace Lipid Analysis Description: LIPID
Associated Lab Samples: 40151542001, 40151542002, 40151542003, 40151542004, 40151542005, 40151542006

METHOD BLANK: 1652270 Matrix: Tissue
Associated Lab Samples: 40151542001, 40151542002, 40151542003, 40151542004, 40151542005, 40151542006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lipid	%	<0.030	0.030	0.030	02/27/18 07:05	

MATRIX SPIKE SAMPLE: 1682421

Parameter	Units	40151542004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lipid	%	0.38		0.32			

SAMPLE DUPLICATE: 1652271

Parameter	Units	40151542004 Result	Dup Result	RPD	Max RPD	Qualifiers
Lipid	%	0.38	0.35	6	40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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PCB - FORM III SVOA-1

TISSUE SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Green Bay
Matrix Spike - Sample No: 1652258MS

Date Extracted: 02/27/2018
Date Analyzed (1): 02/28/2018

Instrument: 40GCSJ
Lab File ID: 022818.B\022818007.D

Parent Sample ID: TD3-170612-01-SMB-03
SDG No.: 40151542

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
PCB-1242 (Aroclor 1242)	249 ✓	<114	340J ✓	136 ✓	70-130

115 —

No goal

90% ↑

Refer to attached spreadsheet for re-calc

Spike Recovery: 1 out of 1 outside limits.

04/27/2018 8:03

Sample TD3-170612-01-SMB-03

Wt = 9.991 **DF =** 10

		Area	*Avg CF*	**On Column**	**Peak Result**	**Aroclor Result**
A1242	PCB-6	16403	*2277537.500*	0.01	36	**115** ug/kg
	PCB-7	47969	*2324921.950*	0.02	103	
	PCB-8	190125	*6167947.200*	0.03	154	
	PCB-9	59014	*2659915.350*	0.02	111	
	PCB-10	62055	*1808131.700*	0.03	172	
				(Area / Avg CF)	(On Column * DF * 5000/Wt)	(Avg of 5 Peak Results)

Recalc MS %Rec

Spike Added	249 ug/kg
Sample Conc.	115 ug/kg
MS Conc.	340 ug/kg
MS %Rec	**90%**

SAMPLE NO.

DUP

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay
Contract: HUDSON RIVER REMEDIAL ACTION M

Date Received: 06/13/2017 09:30
Matrix: Tissue SDG No.: 40151542

Date Extracted: 02/27/2018 06:56
Lab Sample ID: 1652259

Date Analyzed: 02/28/2018 09:38 ✓
Lab File ID: 022818.B\022818008.D

Initial wt/vol: 10.0075 ✓ Final wt/vol: 5 mL Dilution: 10 ✓
Instrument: 40GCSJ Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	<114	U
11104-28-2	PCB-1221 (Aroclor 1221)	<114	U
11141-16-5	PCB-1232 (Aroclor 1232)	<114	U
53469-21-9	PCB-1242 (Aroclor 1242)	<114	U
12672-29-6	PCB-1248 (Aroclor 1248)	888 ✓	
11097-69-1	PCB-1254 (Aroclor 1254)	1270 ✓	
11096-82-5	PCB-1260 (Aroclor 1260)	708 ✓	

PCB - FORM III SVOA-1

TISSUE SEMI-VOLATILE SAMPLE/DUPLICATE RECOVERY

Lab Name: Pace Analytical - Green Bay
Date Extracted: 02/27/2018
Instrument 40GCSJ
Lab Sample ID: TD3-170612-01-SMB-03 ✓

Duplicate Sample No: 40151542004DUP
Date Analyzed: 02/28/2018
Lab File ID: 022818.B\022818008.D
SDG No.: 40151542

COMPOUND	SAMPLE CONCENTRATION (ug/kg)	DUPLICATE CONCENTRATION (ug/kg)	RPD	RPD LIMITS
PCB-1016 (Aroclor 1016)	<114	<114		0-40
PCB-1221 (Aroclor 1221)	<114	<114		0-40
PCB-1232 (Aroclor 1232)	<114	<114		0-40
PCB-1242 (Aroclor 1242)	<114	<114		0-40
PCB-1248 (Aroclor 1248)	1170 ✓	888 ✓	28	0-40
PCB-1254 (Aroclor 1254)	1690 ✓	1270 ✓	28	0-40
PCB-1260 (Aroclor 1260)	970 ✓	708 ✓	31	0-40

✓

RPD: 0 out of 3 outside limits.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40151542

Calibration Date(s): 02/01/2018 02/01/2018 Calibration Time(s): 15:41 23:12

LAB FILE ID

CAL1A = 020118.B\020118058.D CAL1B = 020118.B\020118022.D CAL1C = 020118.B\020118046.D

CAL1D = 020118.B\020118034.D CAL1F = 020118.B\020118010.D CAL2A = 020118.B\020118060.D

CAL2B = 020118.B\020118024.D CAL2C = 020118.B\020118048.D CAL2D = 020118.B\020118036.D

CAL2F = 020118.B\020118012.D CAL3A = 020118.B\020118062.D CAL3B = 020118.B\020118026.D

CAL3C = 020118.B\020118050.D CAL3D = 020118.B\020118038.D CAL3F = 020118.B\020118014.D

CAL4A = 020118.B\020118064.D CAL4B = 020118.B\020118028.D CAL4C = 020118.B\020118052.D

CAL4D = 020118.B\020118040.D CAL4F = 020118.B\020118016.D CAL5A = 020118.B\020118066.D

CAL5B = 020118.B\020118030.D CAL5C = 020118.B\020118054.D CAL5D = 020118.B\020118042.D

CAL5F = 020118.B\020118018.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5
Aroclor 1016	1	Averaged	3112820.00	3035205.00	2823956.00	2753003.75	2631720.00
Aroclor 1016	2	Averaged	3106710.00	3071580.00	2921966.00	2846087.50	2730766.00
Aroclor 1016	3	Averaged	8627130.00	8305855.00	7656058.00	7520760.00	7263295.00
Aroclor 1016	4	Averaged	3704150.00	3547525.00	3348500.00	3252068.75	3143002.00
Aroclor 1016	5	Averaged	2670070.00	2361535.00	2302366.00	2263647.50	2169966.00
Aroclor 1221	1	Averaged	1031960.00	1015315.00	927998.000	926320.000	913905.000
Aroclor 1221	2	Averaged	596050.000	552110.000	486900.000	478000.000	484272.000
Aroclor 1221	3	Averaged	1328850.00	1283830.00	1176426.00	1177777.50	1178222.00
Aroclor 1221	4	Averaged	1031060.00	984650.000	922020.000	955875.000	988893.000
Aroclor 1221	5	Averaged	2990830.00	3026875.00	2769790.00	2699886.25	2659407.00
Aroclor 1242	1	Averaged	2496650.00	2404925.00	2256810.00	2146952.50	2082350.00
Aroclor 1242	2	Averaged	2556240.00	2411775.00	2299060.00	2201033.75	2156501.00
Aroclor 1242	3	Averaged	6828190.00	6545905.00	6057818.00	5754695.00	5653128.00
Aroclor 1242	4	Averaged	2917540.00	2792805.00	2638632.00	2499963.75	2450636.00
Aroclor 1242	5	Averaged	1979500.00	1863835.00	1808618.00	1708582.50	1680123.00
Aroclor 1248	1	Averaged	2243540.00	2215370.00	2071386.00	1957437.50	1928345.00
Aroclor 1248	2	Averaged	4030970.00	3970655.00	3618092.00	3450820.00	3402973.00
Aroclor 1248	3	Averaged	1853380.00	1817205.00	1743642.00	1672420.00	1649135.00
Aroclor 1248	4	Averaged	4691680.00	4682375.00	4327990.00	4090952.50	4022376.00
Aroclor 1248	5	Averaged	3292260.00	3266350.00	3068674.00	2924240.00	2903514.00
Aroclor 1254	1	Averaged	5106390.00	4976805.00	4588838.00	4250575.00	4211464.00
Aroclor 1254	2	Averaged	4055710.00	4041050.00	3860250.00	3577445.00	3574029.00
Aroclor 1254	3	Averaged	7578410.00	7306955.00	6801510.00	6327833.75	6298505.00
Aroclor 1254	4	Averaged	4543960.00	4504220.00	4327584.00	4062911.25	4043877.00
Aroclor 1254	5	Averaged	6214000.00	6096090.00	5724416.00	5311281.25	5273367.00
Aroclor 1260	1	Averaged	8783980.00	8307575.00	7717164.00	7551110.00	7326194.00
Aroclor 1260	2	Averaged	9909500.00	9319745.00	8692030.00	8545378.75	8275584.00
Aroclor 1260	3	Averaged	4684670.00	4550785.00	4253564.00	4183218.75	4062599.00
Aroclor 1260	4	Averaged	2946020.00	2789825.00	2684390.00	2569060.00	2494518.00

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 8:03

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40151542

Calibration Date(s): 02/01/2018 02/01/2018 Calibration Time(s): 15:41 23:12

LAB FILE ID

CAL1A =	020118.B\020118058.D	CAL1B =	020118.B\020118022.D	CAL1C =	020118.B\020118046.D
CAL1D =	020118.B\020118034.D	CAL1F =	020118.B\020118010.D	CAL2A =	020118.B\020118060.D
CAL2B =	020118.B\020118024.D	CAL2C =	020118.B\020118048.D	CAL2D =	020118.B\020118036.D
CAL2F =	020118.B\020118012.D	CAL3A =	020118.B\020118062.D	CAL3B =	020118.B\020118026.D
CAL3C =	020118.B\020118050.D	CAL3D =	020118.B\020118038.D	CAL3F =	020118.B\020118014.D
CAL4A =	020118.B\020118064.D	CAL4B =	020118.B\020118028.D	CAL4C =	020118.B\020118052.D
CAL4D =	020118.B\020118040.D	CAL4F =	020118.B\020118016.D	CAL5A =	020118.B\020118066.D
CAL5B =	020118.B\020118030.D	CAL5C =	020118.B\020118054.D	CAL5D =	020118.B\020118042.D
CAL5F =	020118.B\020118018.D				

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5
Aroclor 1260	5	Averaged	2539920.00	2482475.00	2379902.00	2312086.25	2230817.00
Decachlorobiphenyl (S)		Averaged	113048100.	102127550.	94496520.0	90296410.0	86559600.0
Tetrachloro-m-xylene		Averaged	132503200.	127252550.	123927060.	122695630.	120000440.

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 8:03

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40151542

Calibration Date(s): 02/01/2018 02/01/2018 Calibration Time(s): 15:41 23:12

LAB FILE ID

CAL1A = 020118.B\020118058.D CAL1B = 020118.B\020118022.D CAL1C = 020118.B\020118046.D

CAL1D = 020118.B\020118034.D CAL1F = 020118.B\020118010.D CAL2A = 020118.B\020118060.D

CAL2B = 020118.B\020118024.D CAL2C = 020118.B\020118048.D CAL2D = 020118.B\020118036.D

CAL2F = 020118.B\020118012.D CAL3A = 020118.B\020118062.D CAL3B = 020118.B\020118026.D

CAL3C = 020118.B\020118050.D CAL3D = 020118.B\020118038.D CAL3F = 020118.B\020118014.D

CAL4A = 020118.B\020118064.D CAL4B = 020118.B\020118028.D CAL4C = 020118.B\020118052.D

CAL4D = 020118.B\020118040.D CAL4F = 020118.B\020118016.D CAL5A = 020118.B\020118066.D

CAL5B = 020118.B\020118030.D CAL5C = 020118.B\020118054.D CAL5D = 020118.B\020118042.D

CAL5F = 020118.B\020118018.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	6.93			2871340.95	
Aroclor 1016	2	Averaged	5.33			2935421.90	
Aroclor 1016	3	Averaged	7.23			7874619.60	
Aroclor 1016	4	Averaged	6.65			3399049.15	
Aroclor 1016	5	Averaged	8.08			2353516.90	
Aroclor 1221	1	Averaged	5.79			963099.60	
Aroclor 1221	2	Averaged	10.07			519466.40	
Aroclor 1221	3	Averaged	5.88			1229021.10	
Aroclor 1221	4	Averaged	4.15			976499.60	
Aroclor 1221	5	Averaged	5.97			2829357.65	
Aroclor 1242	1	Averaged	7.59			2277537.50	
Aroclor 1242	2	Averaged	6.98			2324921.95	
Aroclor 1242	3	Averaged	8.21			6167947.20	
Aroclor 1242	4	Averaged	7.37			2659915.35	
Aroclor 1242	5	Averaged	6.70			1808131.70	
Aroclor 1248	1	Averaged	6.91 ✓			2083215.70 ✓	
Aroclor 1248	2	Averaged	7.88			3694702.00	
Aroclor 1248	3	Averaged	5.07			1747156.40	
Aroclor 1248	4	Averaged	7.25			4363074.70	
Aroclor 1248	5	Averaged	5.93			3091007.60	
Aroclor 1254	1	Averaged	8.83 ✓			4626814.40 ✓	
Aroclor 1254	2	Averaged	6.21			3821696.80	
Aroclor 1254	3	Averaged	8.36			6862642.75	
Aroclor 1254	4	Averaged	5.50			4296510.45	
Aroclor 1254	5	Averaged	7.57 ✓			5723830.85 ✓	
Aroclor 1260	1	Averaged	7.51			7937204.60	
Aroclor 1260	2	Averaged	7.37			8948447.55	
Aroclor 1260	3	Averaged	5.99			4346967.35	
Aroclor 1260	4	Averaged	6.63			2696762.60	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system. ✓

04/27/2018 8:03

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40151542

Calibration Date(s): 02/01/2018 02/01/2018 Calibration Time(s): 15:41 23:12

LAB FILE ID

CAL1A = 020118.B\020118058.D CAL1B = 020118.B\020118022.D CAL1C = 020118.B\020118046.D

CAL1D = 020118.B\020118034.D CAL1F = 020118.B\020118010.D CAL2A = 020118.B\020118060.D

CAL2B = 020118.B\020118024.D CAL2C = 020118.B\020118048.D CAL2D = 020118.B\020118036.D

CAL2F = 020118.B\020118012.D CAL3A = 020118.B\020118062.D CAL3B = 020118.B\020118026.D

CAL3C = 020118.B\020118050.D CAL3D = 020118.B\020118038.D CAL3F = 020118.B\020118014.D

CAL4A = 020118.B\020118064.D CAL4B = 020118.B\020118028.D CAL4C = 020118.B\020118052.D

CAL4D = 020118.B\020118040.D CAL4F = 020118.B\020118016.D CAL5A = 020118.B\020118066.D

CAL5B = 020118.B\020118030.D CAL5C = 020118.B\020118054.D CAL5D = 020118.B\020118042.D

CAL5F = 020118.B\020118018.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1260	5	Averaged	5.23			2389040.05	
Decachlorobiphenyl (S)		Averaged	10.82 ✓			97305636.00 ✓	
Tetrachloro-m-xylene		Averaged	3.83			125275776.0	

✓

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40151542

Calibration Date(s): 02/01/2018 02/01/2018 Calibration Time(s): 15:41 23:12

LAB FILE ID

CAL1A = 020118.B\020118058.D CAL1B = 020118.B\020118022.D CAL1C = 020118.B\020118046.D

CAL1D = 020118.B\020118034.D CAL1F = 020118.B\020118010.D CAL2A = 020118.B\020118060.D

CAL2B = 020118.B\020118024.D CAL2C = 020118.B\020118048.D CAL2D = 020118.B\020118036.D

CAL2F = 020118.B\020118012.D CAL3A = 020118.B\020118062.D CAL3B = 020118.B\020118026.D

CAL3C = 020118.B\020118050.D CAL3D = 020118.B\020118038.D CAL3F = 020118.B\020118014.D

CAL4A = 020118.B\020118064.D CAL4B = 020118.B\020118028.D CAL4C = 020118.B\020118052.D

CAL4D = 020118.B\020118040.D CAL4F = 020118.B\020118016.D CAL5A = 020118.B\020118066.D

CAL5B = 020118.B\020118030.D CAL5C = 020118.B\020118054.D CAL5D = 020118.B\020118042.D

CAL5F = 020118.B\020118018.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	RT	RT WINDOW	
								FROM	TO
Aroclor 1016	1	3.317	3.318	3.317	3.317	3.317	3.317	3.283	3.351
Aroclor 1016	2	3.512	3.512	3.513	3.514	3.513	3.512	3.478	3.546
Aroclor 1016	3	3.826	3.826	3.826	3.827	3.826	3.827	3.793	3.861
Aroclor 1016	4	3.928	3.928	3.929	3.928	3.928	3.928	3.894	3.962
Aroclor 1016	5	3.994	3.993	3.994	3.993	3.994	3.993	3.959	4.027
Aroclor 1221	1	1.804	1.804	1.805	1.805	1.804	1.804	1.77	1.838
Aroclor 1221	2	2.407	2.407	2.408	2.406	2.406	2.407	2.373	2.441
Aroclor 1221	3	2.689	2.688	2.689	2.688	2.687	2.688	2.654	2.722
Aroclor 1221	4	2.789	2.789	2.79	2.789	2.789	2.789	2.755	2.823
Aroclor 1221	5	2.852	2.851	2.852	2.851	2.85	2.851	2.817	2.885
Aroclor 1242	1	3.317	3.317	3.317	3.317	3.317	3.318	3.284	3.352
Aroclor 1242	2	3.514	3.515	3.514	3.512	3.513	3.513	3.479	3.547
Aroclor 1242	3	3.825	3.827	3.827	3.826	3.826	3.827	3.793	3.861
Aroclor 1242	4	3.928	3.929	3.928	3.928	3.928	3.929	3.895	3.963
Aroclor 1242	5	3.994	3.994	3.994	3.994	3.994	3.993	3.959	4.027
Aroclor 1248	1	4.261	4.26	4.26	4.259	4.26	4.26	4.226	4.294
Aroclor 1248	2	4.545	4.545	4.544	4.545	4.545	4.545	4.511	4.579
Aroclor 1248	3	4.814	4.812	4.812	4.812	4.812	4.812	4.778	4.846
Aroclor 1248	4	4.88	4.878	4.878	4.877	4.878	4.878	4.844	4.912
Aroclor 1248	5	5.036	5.035	5.035	5.036	5.036	5.036	5.002	5.07
Aroclor 1254	1	5.161	5.161	5.161	5.161	5.162	5.161	5.127	5.195
Aroclor 1254	2	5.405	5.406	5.406	5.406	5.406	5.406	5.372	5.44
Aroclor 1254	3	5.508	5.508	5.508	5.509	5.508	5.508	5.474	5.542
Aroclor 1254	4	6.026	6.024	6.025	6.025	6.025	6.025	5.991	6.059
Aroclor 1254	5	6.298	6.298	6.297	6.297	6.297	6.298	6.264	6.332
Aroclor 1260	1	6.298	6.298	6.299	6.298	6.299	6.298	6.264	6.332
Aroclor 1260	2	7.004	7.004	7.004	7.004	7.003	7.003	6.969	7.037
Aroclor 1260	3	7.251	7.251	7.25	7.249	7.251	7.25	7.216	7.284

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40151542

Calibration Date(s): 02/01/2018 02/01/2018 Calibration Time(s): 15:41 23:12

LAB FILE ID

CAL1A = 020118.B\020118058.D CAL1B = 020118.B\020118022.D CAL1C = 020118.B\020118046.D

CAL1D = 020118.B\020118034.D CAL1F = 020118.B\020118010.D CAL2A = 020118.B\020118060.D

CAL2B = 020118.B\020118024.D CAL2C = 020118.B\020118048.D CAL2D = 020118.B\020118036.D

CAL2F = 020118.B\020118012.D CAL3A = 020118.B\020118062.D CAL3B = 020118.B\020118026.D

CAL3C = 020118.B\020118050.D CAL3D = 020118.B\020118038.D CAL3F = 020118.B\020118014.D

CAL4A = 020118.B\020118064.D CAL4B = 020118.B\020118028.D CAL4C = 020118.B\020118052.D

CAL4D = 020118.B\020118040.D CAL4F = 020118.B\020118016.D CAL5A = 020118.B\020118066.D

CAL5B = 020118.B\020118030.D CAL5C = 020118.B\020118054.D CAL5D = 020118.B\020118042.D

CAL5F = 020118.B\020118018.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	RT	RT WINDOW	
								FROM	TO
Aroclor 1260	4	7.442	7.442	7.442	7.441	7.442	7.441	7.407	7.475
Aroclor 1260	5	7.899	7.899	7.9	7.899	7.899	7.899	7.865	7.933
Decachlorobiphenyl (S)		8.569	8.569	8.57	8.569	8.569	8.569	8.535	8.603
Tetrachloro-m-xylene		2.484	2.484	2.485	2.484	2.484	2.483	2.449	2.517

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40151542

Calibration Date(s): 02/01/2018 Calibration Time(s): 15:24

LAB FILE ID

CAL3S = 020118.B\020118008.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.5	1	2.851	2.817	2.885	2153886.00
Aroclor 1232	.5	2	3.514	3.48	3.548	1204648.00
Aroclor 1232	.5	3	3.826	3.792	3.86	3158628.00
Aroclor 1232	.5	4	3.929	3.895	3.963	1353756.00
Aroclor 1232	.5	5	3.995	3.961	4.029	908220.000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 8:03

PCB Low Level Calibration % Difference Check

Lab Name: Pace Analytical - Green Bay
Instrument ID: 40GCSJ
Calibration Date: 2/1/2018

Aroclor	True Value	Abundance Concentration	% Difference	Acceptance Criteria %	Pass/Fail
AR1221-CAL1	.1	0.108262	8.262	20	Pass
AR1242-CAL1	.1	0.109888	9.888	20	Pass
AR1248-CAL1	.1	0.107384	7.384	20	Pass
AR1254-CAL1	.1	0.108248	8.248	20	Pass
AR1016-CAL1	.1	0.108778	8.778	20	Pass
AR1260-CAL1	.1	0.108477	8.477	20	Pass

SAMPLE NO.

10754812ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 02/01/2018 Time: 23:44

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 02/01/2018 02/01/2018

Lab File ID: 020118.B\020118070.D Init. Calib. Time(s): 15:24 23:12

SDG No.: 40151542

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1221	1	Averaged	1.804	1.77	1.838	963099.600	1022348.00	6.1518
Aroclor 1221	2	Averaged	2.407	2.373	2.441	519466.400	536104.000	3.2028
Aroclor 1221	3	Averaged	2.687	2.654	2.722	1229021.10	1328382.00	8.0846
Aroclor 1221	4	Averaged	2.788	2.755	2.823	976499.600	1033122.00	5.7985
Aroclor 1221	5	Averaged	2.851	2.817	2.885	2829357.65	3121002.00	10.3078
Decachlorobiphenyl (S)		Averaged	8.569	8.535	8.603	97305636.0	93031780.0	-4.3922
Tetrachloro-m-xylene		Averaged	2.484	2.449	2.517	125275776.	119109420.	-4.9222

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 8:03

SAMPLE NO.

10754821ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 02/02/2018 Time: 00:00

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 02/01/2018 02/01/2018

Lab File ID: 020118.B\020118072.D Init. Calib. Time(s): 15:24 23:12

SDG No.: 40151542

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1242	1	Averaged	3.316	3.284	3.352	2277537.50	2375878.00	4.3178
Aroclor 1242	2	Averaged	3.512	3.479	3.547	2324921.95	2434742.00	4.7236
Aroclor 1242	3	Averaged	3.826	3.793	3.861	6167947.20	6317432.00	2.4236
Aroclor 1242	4	Averaged	3.928	3.895	3.963	2659915.35	2766716.00	4.0152
Aroclor 1242	5	Averaged	3.993	3.959	4.027	1808131.70	1885160.00	4.2601
Decachlorobiphenyl (S)		Averaged	8.569	8.535	8.603	97305636.0	89495480.0	-8.0264
Tetrachloro-m-xylene		Averaged	2.484	2.449	2.517	125275776.	116601180.	-6.9244

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 8:03

SAMPLE NO.

10754836ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 02/02/2018 Time: 00:17

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 02/01/2018 02/01/2018

Lab File ID: 020118.B\020118074.D Init. Calib. Time(s): 15:24 23:12

SDG No.: 40151542

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1248	1	Averaged	4.26	4.226	4.294	2083215.70	2217792.00	6.4600
Aroclor 1248	2	Averaged	4.545	4.511	4.579	3694702.00	3901840.00	5.6064
Aroclor 1248	3	Averaged	4.812	4.778	4.846	1747156.40	1912408.00	9.4583
Aroclor 1248	4	Averaged	4.878	4.844	4.912	4363074.70	4633010.00	6.1868
Aroclor 1248	5	Averaged	5.036	5.002	5.07	3091007.60	3341124.00	8.0917
Decachlorobiphenyl (S)		Averaged	8.569	8.535	8.603	97305636.0	90299100.0	-7.2005
Tetrachloro-m-xylene		Averaged	2.484	2.449	2.517	125275776.	118230860.	-5.6235

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 8:03

SAMPLE NO.

10754827ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay
Calibration Date: 02/02/2018 Time: 00:33

Instrument ID: 40GCSJ GC Column: Col 1
Init. Calib. Date(s): 02/01/2018 02/01/2018

Lab File ID: 020118.B\020118076.D
Init. Calib. Time(s): 15:24 23:12

SDG No.: 40151542

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1254	1	Averaged	5.161	5.127	5.195	4626814.40	4367364.00	-5.6075
Aroclor 1254	2	Averaged	5.405	5.372	5.44	3821696.80	3639090.00	-4.7782
Aroclor 1254	3	Averaged	5.509	5.474	5.542	6862642.75	6286092.00	-8.4013
Aroclor 1254	4	Averaged	6.025	5.991	6.059	4296510.45	4052620.00	-5.6765
Aroclor 1254	5	Averaged	6.297	6.264	6.332	5723830.85	5593406.00	-2.2786
Decachlorobiphenyl (S)		Averaged	8.569	8.535	8.603	97305636.0	90604620.0	-6.8866
Tetrachloro-m-xylene		Averaged	2.485	2.449	2.517	125275776.	119005220.	-5.0054

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 8:03

SAMPLE NO.

10754834ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 02/02/2018 Time: 00:49

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 02/01/2018 02/01/2018

Lab File ID: 020118.B\020118078.D Init. Calib. Time(s): 15:24 23:12

SDG No.: 40151542

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	3.317	3.283	3.351	2871340.95	2945272.00	2.5748
Aroclor 1016	2	Averaged	3.513	3.478	3.546	2935421.90	3038492.00	3.5113
Aroclor 1016	3	Averaged	3.825	3.793	3.861	7874619.60	8030782.00	1.9831
Aroclor 1016	4	Averaged	3.927	3.894	3.962	3399049.15	3471692.00	2.1372
Aroclor 1016	5	Averaged	3.993	3.959	4.027	2353516.90	2364606.00	0.4712
Aroclor 1260	1	Averaged	6.298	6.264	6.332	7937204.60	7517878.00	-5.2831
Aroclor 1260	2	Averaged	7.003	6.969	7.037	8948447.55	9116860.00	1.8820
Aroclor 1260	3	Averaged	7.25	7.216	7.284	4346967.35	4399648.00	1.2119
Aroclor 1260	4	Averaged	7.441	7.407	7.475	2696762.60	2714840.00	0.6703
Aroclor 1260	5	Averaged	7.899	7.865	7.933	2389040.05	2560028.00	7.1572
Decachlorobiphenyl (S)		Averaged	8.568	8.535	8.603	97305636.0	92095720.0	-5.3542
Tetrachloro-m-xylene		Averaged	2.484	2.449	2.517	125275776.	119302920.	-4.7678

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 8:03

SAMPLE NO.

10739472CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 02/28/2018 Time: 08:23

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 02/01/2018 02/01/2018

Lab File ID: 022818.B\022818004.D Init. Calib. Time(s): 15:24 23:12

SDG No.: 40151542

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1248	1	Averaged	4.262	4.226	4.294	2083215.70	2071452.00	-0.5647
Aroclor 1248	2	Averaged	4.546	4.511	4.579	3694702.00	3574564.00	-3.2516
Aroclor 1248	3	Averaged	4.813	4.778	4.846	1747156.40	1676532.00	-4.0422
Aroclor 1248	4	Averaged	4.878	4.844	4.912	4363074.70	4187004.00	-4.0355
Aroclor 1248	5	Averaged	5.037	5.002	5.07	3091007.60	2890362.00	-6.4913
Decachlorobiphenyl (S)		Averaged	8.57	8.535	8.603	97305636.0	90489700.0	-7.0047
Tetrachloro-m-xylene		Averaged	2.485	2.449	2.517	125275776.	109914700.	-12.2618

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 8:03

SAMPLE NO.

10739473CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 02/28/2018 Time: 11:29

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 02/01/2018 02/01/2018

Lab File ID: 022818.B\022818015.D Init. Calib. Time(s): 15:24 23:12

SDG No.: 40151542

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1254	1	Averaged	5.162	5.127	5.195	4626814.40	4863930.00	5.1248
Aroclor 1254	2	Averaged	5.407	5.372	5.44	3821696.80	4045504.00	5.8562
Aroclor 1254	3	Averaged	5.51	5.474	5.542	6862642.75	7182226.00	4.6569
Aroclor 1254	4	Averaged	6.027	5.991	6.059	4296510.45	4533644.00	5.5192
Aroclor 1254	5	Averaged	6.299	6.264	6.332	5723830.85	6044152.00	5.5963
Decachlorobiphenyl (S)		Averaged	8.571	8.535	8.603	97305636.0	97636860.0	0.3404
Tetrachloro-m-xylene		Averaged	2.484	2.449	2.517	125275776.	116134740.	-7.2967

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

04/27/2018 8:03

Pace Analytical® Prep Log Report

40151542_Rev3

Batch Information: OEXT 281918 PCB-B

Template Version: F-GB-O-113-Rev.03 (19Feb2018)

Prep Method	EPA 3541
Spiked By	AMC
Instrument	40BALL
Hexane	188917
H2SO4 - Conc.	179361
Reviewed By Date	03/21/2018 09:26

Analysis Method	EPA 8082A Mod
Spiked By Date/Time	02/27/2018 06:56:11:522
Conc. Temp #1	40
Sodium Sulfate	186889
Acid 3665A Date/Initials	2/27/18 AMC
Batch Notes	Hex/Ace 50:50- 187883

Extracted By	AMC
Witnessed By	ETB
Conc. Temp #2	40
Florisil	186910
Tuna	None Added

Extracted Date/Time	02/27/2018 06:56:10:458
Witnessed By Date/Time	02/27/2018 07:49:40:163
Methylene Chloride	None Added
3620B Date/Initials	2/27/18 AMC
Reviewed By	BLM

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Volume Delivered (mL)	Sample Notes	8081-SS (mL)	AR1242-SPK (mL)
8082A TNYP	BLANK	**1652256**	10	5	3		185015 (.25)	
8082A TNYP	LCS	**1652257**	10	5	3		185015 (.25)	182336 (.125)
8082A TNYP	PS	**40151542001**	9.9602	5	3		185015 (.25)	
8082A TNYP	PS	**40151542002**	9.9707	5	3		185015 (.25)	
8082A TNYP	PS	**40151542003**	10.0308	5	3		185015 (.25)	
8082A TNYP	PS	**40151542004**	9.9911	5	3		185015 (.25)	
8082A TNYP	MS	**1652258**	10.0244	5	3		185015 (.25)	182336 (.125)
8082A TNYP	DUP	**1652259**	10.0075	5	3		185015 (.25)	
8082A TNYP	PS	**40151542005**	9.9714	5	3		185015 (.25)	
8082A TNYP	PS	**40151542006**	10.0093	5	3		185015 (.25)	

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Standard Notes:

182336: Ar1242 Spike @20ug/mL 40GCS9. **185015: Pest/PCB Surrogate Spike 40GCS7.**

```
     Sequence Name: C:\msdchem\1\sequence\020118.s
           Comment:
          Operator: BLM
         Data Path: C:\MSDCHEM\1\DATA\020118\
Instrument Control  Pre-Seq Cmd:
Data Analysis       Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis      Post-Seq Cmd:

    Method Sections To Run      Sequence Barcode Options
    (X) Full Method             (X) On Mismatch, Inject Anyway
    ( ) Reprocessing Only       ( ) On Mismatch, Don't Inject
                                ( ) Barcode Disabled
```

Line		Sample Name/Misc Info
1) RearSamp	1	prime
Datafile		020118001
Method		GEBIOTA2017
2) Sample	2	prime
Datafile		020118002
Method		GEBIOTA2017
3) RearSamp	3	HEXANE
Datafile		020118003
Method		GEBIOTA2017
4) Sample	4	HEXANE
Datafile		020118004
Method		GEBIOTA2017
5) RearSamp	5	1232-CAL3S,185539:1,17400,NSA
Datafile		020118005
Method		GEBIOTA2017
6) Sample	4	HEXANE
Datafile		020118006
Method		GEBIOTA2017
7) RearSamp	6	1221-CAL1F,188138:1,17400,NSA
Datafile		020118007
Method		GEBIOTA2017
8) Sample	5	1232-CAL3S,185539:1,17401,NSA
Datafile		020118008
Method		GEBIOTA2017
9) RearSamp	7	1221-CAL2F,188139:1,17400,NSA
Datafile		020118009
Method		GEBIOTA2017
10) Sample	6	1221-CAL1F,188138:1,17401,NSA
Datafile		020118010
Method		GEBIOTA2017
11) RearSamp	8	1221-CAL3F,185538:1,17400,NSA
Datafile		020118011
Method		GEBIOTA2017
12) Sample	7	1221-CAL2F,188139:1,17401,NSA
Datafile		020118012
Method		GEBIOTA2017
13) RearSamp	9	1221-CAL4F,188140:1,17400,NSA
Datafile		020118013
Method		GEBIOTA2017
14) Sample	8	1221-CAL3F,185538:1,17401,NSA
Datafile		020118014
Method		GEBIOTA2017
15) RearSamp	10	1221-CAL5F,188141:1,17400,NSA
Datafile		020118015
Method		GEBIOTA2017
16) Sample	9	1221-CAL4F,188140:1,17401,NSA
Datafile		020118016
Method		GEBIOTA2017
17) RearSamp	11	HEXANE
Datafile		020118017
Method		GEBIOTA2017
18) Sample	10	1221-CAL5F,188141:1,17401,NSA
Datafile		020118018
Method		GEBIOTA2017
19) RearSamp	12	1242-CAL1B,188132:1,17400,NSA
Datafile		020118019

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   Last Modified: Thu Feb 01 14:27:59 2018
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Read and Understood By

Signed — 2/8/18 Date — Signed — 2/9/18 Date

PROJECT 40GCST/K 02/01/18

Notebook No. 4309

Continued from Page 79

```
      Method              GEBIOTA2017
20)  Sample        11     HEXANE
      Datafile            020118020
      Method              GEBIOTA2017
21)  RearSamp      13     1242-CAL2B,185543:1,17400,NSA
      Datafile            020118021
      Method              GEBIOTA2017
22)  Sample        12     1242-CAL1B,188132:1,17401,NSA
      Datafile            020118022
      Method              GEBIOTA2017
23)  RearSamp      14     1242-CAL3B,185544:1,17400,NSA
      Datafile            020118023
      Method              GEBIOTA2017
24)  Sample        13     1242-CAL2B,185543:1,17401,NSA
      Datafile            020118024
      Method              GEBIOTA2017
25)  RearSamp      15     1242-CAL4B,185545:1,17400,NSA
      Datafile            020118025
      Method              GEBIOTA2017
26)  Sample        14     1242-CAL3B,185544:1,17401,NSA
      Datafile            020118026
      Method              GEBIOTA2017
27)  RearSamp      16     1242-CAL5B,185546:1,17400,NSA
      Datafile            020118027
      Method              GEBIOTA2017
28)  Sample        15     1242-CAL4B,185545:1,17401,NSA
      Datafile            020118028
      Method              GEBIOTA2017
29)  RearSamp      17     HEXANE
      Datafile            020118029
      Method              GEBIOTA2017
30)  Sample        16     1242-CAL5B,185546:1,17401,NSA
      Datafile            020118030
      Method              GEBIOTA2017
31)  RearSamp      18     1248-CAL1D,188134:1,17400,NSA
      Datafile            020118031
      Method              GEBIOTA2017
32)  Sample        17     HEXANE
      Datafile            020118032
      Method              GEBIOTA2017
33)  RearSamp      19     1248-CAL2D,185548:1,17400,NSA
      Datafile            020118033
      Method              GEBIOTA2017
34)  Sample        18     1248-CAL1D,188134:1,17401,NSA
      Datafile            020118034
      Method              GEBIOTA2017
35)  RearSamp      20     1248-CAL3D,185549:1,17400,NSA
      Datafile            020118035
      Method              GEBIOTA2017
36)  Sample        19     1248-CAL2D,185548:1,17401,NSA
      Datafile            020118036
      Method              GEBIOTA2017
37)  RearSamp      21     1248-CAL4D,185550:1,17400,NSA
      Datafile            020118037
      Method              GEBIOTA2017
38)  Sample        20     1248-CAL3D,185549:1,17401,NSA
      Datafile            020118038
      Method              GEBIOTA2017
39)  RearSamp      22     1248-CAL5D,185551:1,17400,NSA
      Datafile            020118039
      Method              GEBIOTA2017
40)  Sample        21     1248-CAL4D,185550:1,17401,NSA
      Datafile            020118040
      Method              GEBIOTA2017
41)  RearSamp      23     HEXANE
      Datafile            020118041
      Method              GEBIOTA2017
42)  Sample        22     1248-CAL5D,185551:1,17401,NSA
      Datafile            020118042
      Method              GEBIOTA2017
43)  RearSamp      24     1254-CAL1C,188135:1,17400,AR1
      Datafile            020118043

   Last Modified: Thu Feb 01 14:27:59 2018                    Page:  2
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Read and Understood By

Signed	Date	Signed	Date
[signature]	2/8/18	[signature]	2/8/18

Sequence Name: C:\msdchem\1\sequence\020118.s

Line	Type	Vial	DataFile	Method	Sample Name
44)	Sample	23	020118044	GEBIOTA2017	HEXANE
45)	RearSamp	25	020118045	GEBIOTA2017	1254-CAL2C,185553:1,17400,AR1
46)	Sample	24	020118046	GEBIOTA2017	1254-CAL1C,188135:1,17401,AR1
47)	RearSamp	26	020118047	GEBIOTA2017	1254-CAL3C,185554:1,17400,AR1
48)	Sample	25	020118048	GEBIOTA2017	1254-CAL2C,185553:1,17401,AR1
49)	RearSamp	27	020118049	GEBIOTA2017	1254-CAL4C,185555:1,17400,AR1
50)	Sample	26	020118050	GEBIOTA2017	1254-CAL3C,185554:1,17401,AR1
51)	RearSamp	28	020118051	GEBIOTA2017	1254-CAL5C,185556:1,17400,AR1
52)	Sample	27	020118052	GEBIOTA2017	1254-CAL4C,185555:1,17401,AR1
53)	RearSamp	29	020118053	GEBIOTA2017	HEXANE
54)	Sample	28	020118054	GEBIOTA2017	1254-CAL5C,185556:1,17401,AR1
55)	RearSamp	30	020118055	GEBIOTA2017	1660-CAL1A,188136:1,17400,NSA
56)	Sample	29	020118056	GEBIOTA2017	HEXANE
57)	RearSamp	31	020118057	GEBIOTA2017	1660-CAL2A,185558:1,17400,NSA
58)	Sample	30	020118058	GEBIOTA2017	1660-CAL1A,188136:1,17401,NSA
59)	RearSamp	32	020118059	GEBIOTA2017	1660-CAL3A,185559:1,17400,NSA
60)	Sample	31	020118060	GEBIOTA2017	1660-CAL2A,185558:1,17401,NSA
61)	RearSamp	33	020118061	GEBIOTA2017	1660-CAL4A,185560:1,17400,NSA
62)	Sample	32	020118062	GEBIOTA2017	1660-CAL3A,185559:1,17401,NSA
63)	RearSamp	34	020118063	GEBIOTA2017	1660-CAL5A,185561:1,17400,NSA
64)	Sample	33	020118064	GEBIOTA2017	1660-CAL4A,185560:1,17401,NSA
65)	RearSamp	35	020118065	GEBIOTA2017	HEXANE
66)	Sample	34	020118066		1660-CAL5A,185561:1,17401,NSA

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Signed — Date 2/8/18

	Method		GEBIOTA2017
67)	RearSamp	36	1221-ICV,188142:1,17400,AR122 OK
	Datafile		020118067
	Method		GEBIOTA2017
68)	Sample	35	HEXANE
	Datafile		020118068
	Method		GEBIOTA2017
69)	RearSamp	37	1242-ICV,185562:1,17400,AR124 OK
	Datafile		020118069
	Method		GEBIOTA2017
70)	Sample	36	1221-ICV,188142:1,17401,AR122 OK
	Datafile		020118070
	Method		GEBIOTA2017
71)	RearSamp	38	1248-ICV,185563:1,17400,AR124 OK
	Datafile		020118071
	Method		GEBIOTA2017
72)	Sample	37	1242-ICV,185562:1,17401,AR124 OK
	Datafile		020118072
	Method		GEBIOTA2017
73)	RearSamp	39	1254-ICV,185564:1,17400,AR125 OK
	Datafile		020118073
	Method		GEBIOTA2017
74)	Sample	38	1248-ICV,185563:1,17401,AR124 OK
	Datafile		020118074
	Method		GEBIOTA2017
75)	RearSamp	40	1660-ICV,185565:1,17400,AR166 OK
	Datafile		020118075
	Method		GEBIOTA2017
76)	Sample	39	1254-ICV,185564:1,17401,AR125 OK
	Datafile		020118076
	Method		GEBIOTA2017
77)	RearSamp	41	1221-CRDL,188138:1,17400,RL12 OK
	Datafile		020118077
	Method		GEBIOTA2017
78)	Sample	40	1660-ICV,185565:1,17401,AR166 OK
	Datafile		020118078
	Method		GEBIOTA2017
79)	RearSamp	42	1242-CRDL,188132:1,17400,RL12 OK
	Datafile		020118079
	Method		GEBIOTA2017
80)	Sample	41	1221-CRDL,188138:1,17401,RL12 OK
	Datafile		020118080
	Method		GEBIOTA2017
81)	RearSamp	43	1248-CRDL,188134:1,17400,RL12 OK
	Datafile		020118081
	Method		GEBIOTA2017
82)	Sample	42	1242-CRDL,188132:1,17401,RL12 OK
	Datafile		020118082
	Method		GEBIOTA2017
83)	RearSamp	44	1254-CRDL,188135:1,17400,RL12 OK
	Datafile		020118083
	Method		GEBIOTA2017
84)	Sample	43	1248-CRDL,188134:1,17401,RL12 OK
	Datafile		020118084
	Method		GEBIOTA2017
85)	RearSamp	45	1660-CRDL,188136:1,17400,RL16 OK
	Datafile		020118085
	Method		GEBIOTA2017
86)	Sample	44	1254-CRDL,188135:1,17401,RL12 OK
	Datafile		020118086
	Method		GEBIOTA2017
87)	RearSamp	46	HEXANE
	Datafile		020118087
	Method		GEBIOTA2017
88)	Sample	45	1660-CRDL,188136:1,17401,RL16 OK
	Datafile		020118088
	Method		GEBIOTA2017

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BLM 2/8/18

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Read and Understood By

Signed 2/8/18 Date

Signed 2/8/18 Date

Sequence Name: C:\msdchem\1\sequence\022818A.s
Comment:
Operator: BLM
Data Path: C:\MSDCHEM\1\DATA\022818A\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info
1) Sample	1	prime
Datafile		022818001
Method		GEBIOTA2017
2) Sample	2	HEXANE
Datafile		022818002
Method		GEBIOTA2017
3) Sample	3	HEXANE
Datafile		022818003
Method		GEBIOTA2017
4) Sample	4	1248-CCV,185549:1,17401,AR124 ok
Datafile		022818004
Method		GEBIOTA2017
5) Sample	5	1652256,,17484,BIOTA B L
Datafile		022818005
Method		GEBIOTA2017
6) Sample	6	1652257,,17484,BIOTA
Datafile		022818006
Method		GEBIOTA2017 ✓
7) Sample	7	1652258 x10,,17484,BIOTA MS
Datafile		022818007
Method		GEBIOTA2017 ✓
8) Sample	8	1652259 x10,,17484,BIOTA DUP
Datafile		022818008
Method		GEBIOTA2017
9) Sample	9	40151542001,,17484,BIOTA
Datafile		022818009
Method		GEBIOTA2017 ✓
10) Sample	10	40151542002 x10,,17484,BIOTA
Datafile		022818010
Method		GEBIOTA2017 ✓
11) Sample	11	40151542003 x4,,17484,BIOTA
Datafile		022818011
Method		GEBIOTA2017 ✓
12) Sample	12	40151542004 x10,,17484,BIOTA
Datafile		022818012
Method		GEBIOTA2017 ✓
13) Sample	13	40151542005 x5,,17484,BIOTA
Datafile		022818013
Method		GEBIOTA2017 ✓
14) Sample	14	40151542006 x3,,17484,BIOTA
Datafile		022818014
Method		GEBIOTA2017
15) Sample	15	1254-CCV,185554:1,17401,AR125 ok
Datafile		022818015
Method		GEBIOTA2017

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	Method		SCREEN2014
20)	Sample	20	40165048-005
	Datafile		--------
	Method		SCREEN2014
21)	RearSamp	21	40165048-008
	Datafile		--------
	Method		SCREEN2014
22)	Sample	22	40165048-009
	Datafile		--------
	Method		SCREEN2014
23)	RearSamp	23	40165048-010
	Datafile		--------
	Method		SCREEN2014
24)	Sample	24	40165048-011
	Datafile		--------
	Method		SCREEN2014
25)	RearSamp	25	40165048-012
	Datafile		--------
	Method		SCREEN2014
26)	Sample	26	40165129-001
	Datafile		--------
	Method		SCREEN2014
27)	RearSamp	27	40165129-002
	Datafile		--------
	Method		SCREEN2014
28)	Sample	28	40165129-003
	Datafile		--------
	Method		SCREEN2014
29)	RearSamp	29	1652256MB ✓
	Datafile		--------
	Method		SCREEN2014 ✓
30)	Sample	30	1652257LCS
	Datafile		--------
	Method		SCREEN2014
31)	RearSamp	31	1652258MS x10 ✓
	Datafile		--------
	Method		SCREEN2014 ✓
32)	Sample	32	1652259DUP x10
	Datafile		--------
	Method		SCREEN2014
33)	RearSamp	33	40151542-001 —
	Datafile		--------
	Method		SCREEN2014
34)	Sample	34	40151542-002 x10 ✓
	Datafile		--------
	Method		SCREEN2014 ✓
35)	RearSamp	35	40151542-003 x4
	Datafile		--------
	Method		SCREEN2014 ✓
36)	Sample	36	40151542-004P x10
	Datafile		--------
	Method		SCREEN2014 ✓
37)	RearSamp	37	40151542-005 x 5
	Datafile		--------
	Method		SCREEN2014
38)	Sample	38	40151542-006 x 3
	Datafile		--------
	Method		SCREEN2014

GE BIOTA

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SAMPLE NO.

TD4-170612-01-SMB-01

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40151542 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40151542001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	0.64		%	1	02/27/2018 07:05

SAMPLE NO.

TD3-170612-01-SMB-05

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40151542 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40151542002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	0.37		%	1	02/27/2018 07:05

SAMPLE NO.

TD3-170612-01-SMB-04

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40151542 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40151542003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	0.70 ✓		%	1	02/27/2018 07:05

SAMPLE NO.

TD3-170612-01-SMB-03

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40151542 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40151542004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	0.38		%	1	02/27/2018 07:05

SAMPLE NO.

TD3-170612-01-SMB-02

FORM I INORGANIC-1
INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40151542 Contract: HUDSON RIVER REMEDIAL
Lab Sample ID: 40151542005 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	0.16 ✓		%	1	02/27/2018 07:05

SAMPLE NO.

TD3-170612-01-SMB-01

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40151542 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40151542006 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	0.62		%	1	02/27/2018 07:05

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Green Bay SDG No. : 40151542 Contract : HUDSON RIVER REMEDIAL ACTION M

Method Blank Matrix: Tissue Instrument ID: 40BALL

Method Blank Concentration Units: %

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1652270	C
Lipid									<0.030	U

SAMPLE NO.

1652271DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Green Bay SDG No. : 40151542 Contract: HUDSON RIVER REMEDIAL

Matrix: Tissue Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Lipid	40	0.38	0.35	6

Pace Analytical® Prep Log Report

Batch Information: OEXT 281922 LIPIDS

Template Version: F-GB-O-145-Rev.00 (17Feb2015) LIPID

Analysis Method	Pace Lipid	Analyzed By	AMC	Instrument	40BALL	Batch Notes	
Reviewed By	BLM	Reviewed By Date	05/03/2018 13:04				

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Lipid % Posted	Run Date/Time	ID	Sample Weight (g)	Sample Volume (mL)	Aliquot (mL)	Dish Weight (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
LIPID	BLANK	**1652270**	Y	0.000	02/27/2018 07:05:34		10	5	1	0.9334	0.9334	M	
LIPID	BLANK	**1652277**	Y	0.000	02/27/2018 07:05:34		10	5	1	0.9307	0.9307	M	
LIPID	PS	**40151542001**	Y	0.6426	02/27/2018 07:05:34		9.9602	5	1	0.9323	0.9451	M	
LIPID	PS	**40151542002**	Y	0.3661	02/27/2018 07:05:34		9.9707	5	1	0.9303	0.9376	M	
LIPID	PS	**40151542003**	Y	0.6979	02/27/2018 07:05:34		10.0308	5	1	0.9321	0.9461	M	
LIPID	PS	**40151542004**	Y	0.3753	02/27/2018 07:05:34		9.9911	5	1	0.9336	0.9411	M	
LIPID	DUP	**1652271**	Y	0.3547	02/27/2018 07:05:34		10.0075	5	1	0.9289	0.936	M	
LIPID	PS	**40151542005**	Y	0.1554	02/27/2018 07:05:34		9.9714	5	1	0.9332	0.9363	M	
LIPID	PS	**40151542006**	Y	0.6244	02/27/2018 07:05:34		10.0093	5	1	0.9318	0.9443	M	
LIPID	MS	**1682421**	Y	0.3242	02/27/2018 07:05:34		10.0244	5	1	0.933	0.9395	M	

Client Name: GE
Project #: 40151542
Date/Time Removed to Thaw: 02-13-18
Date/Time Prepped: 02-14-18
Prepped by: CWN
Location: 40FR821 / Room Temperature (circle one)

Biota Homogenization Log (NYDOH Method)

Pace Analytical

Logbook: 4407

Sample ID	Sample Type (Fish, Eggs, etc.)	Scales/Skin Removed (Y/N)	Whole Body/Fillet (WB/F)	Picture of Fish/Weight Taken? (Y/N)	Total Fish Weight (g)	Internal Organs Intact (Y/N)	Gender (Optional) M/F/I[3]	Fillet Weight (g)	Left/Both Fillet[1]?	Container Code[2]	Picture of Jars/Weight Taken? (Y/N)	Weight of homogenized Sample (g)	Composite Sample (> 1 per Sample ID) (Y/N)	Sample Comments
1	Fish	Y	F	Y	537.6	Y	F	109.4	Left / Both	9AG	Y	104.3	N	Chop
2	Fish	Y	F	Y	537.6	Y	F	136.9	Left / Both	9AG	Y	128.1	N	Chop
3	Fish	Y	F	Y	350.0	Y	F	78.1	Left / Both	9AG	Y	62.5	N	CWN 02-16-18 Chop Grind
4	Fish	Y	F	Y	785.6	Y	M	164.9	Left / Both	9AG	Y	160.1	N	Chop
5	Fish	Y	F	Y	552.3	Y	M	118.7	Left / Both	9AG	Y	114.9	N	Chop
6	Fish	Y	F	Y	566.8	Y	F	118.0	Left / Both	9AG	Y	114.0	N	Chop
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
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									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					
									Left / Both					

CWN 2/16/18

(1) If left fillet weight is under 40g, the right fillet in included in the sample weight.

(2) Note Container Type / Lot # using Codes Below:

Container Code	Container Size	Lot#
2CG	2 oz Clear Glass	
4AG	4 oz Amber Glass	
9AG	9 oz Amber Glass	F-7-212-04AR
32AG	32 oz Amber Glass	

(3) M = Male, F = Female, I = Indeterminate

[1] Left fillet only - CWN 03-16-18

[2] 'x' through the fillet means that was the fillet taken - CWN 04-27-18

Reviewed By

2/16/18
Date

F-GB-O-153-REV.00 (08Feb2018)
Pace Analytical Services, LLC - Green Bay, WI

40151542_Rev3
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Pace Analytical
www.pacelabs.com

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40151542

Sample: TD4-170612-01-SMB-01 **Lab ID: 40151542001** Collected: 06/12/17 16:16 Received: 06/13/17 09:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<11.4**	ug/kg	50.2	11.4	1	02/27/18 06:56	02/28/18 09:53	12674-11-2	
PCB-1221 (Aroclor 1221)	**<11.4**	ug/kg	50.2	11.4	1	02/27/18 06:56	02/28/18 09:53	11104-28-2	
PCB-1232 (Aroclor 1232)	**<11.4**	ug/kg	50.2	11.4	1	02/27/18 06:56	02/28/18 09:53	11141-16-5	
PCB-1242 (Aroclor 1242)	**<11.4**	ug/kg	50.2	11.4	1	02/27/18 06:56	02/28/18 09:53	53469-21-9	
PCB-1248 (Aroclor 1248)	**150**	ug/kg	50.2	11.4	1	02/27/18 06:56	02/28/18 09:53	12672-29-6	
PCB-1254 (Aroclor 1254)	**116**	ug/kg	50.2	11.4	1	02/27/18 06:56	02/28/18 09:53	11097-69-1	
PCB-1260 (Aroclor 1260)	**46.9J**	ug/kg	50.2	11.4	1	02/27/18 06:56	02/28/18 09:53	11096-82-5	
PCB, Total	**313**	ug/kg	50.2	11.4	1	02/27/18 06:56	02/28/18 09:53	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	84	%	60-140		1	02/27/18 06:56	02/28/18 09:53	877-09-8	
Decachlorobiphenyl (S)	89	%	60-140		1	02/27/18 06:56	02/28/18 09:53	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Female**				1		02/15/18 15:49		
Lipid	Analytical Method: Pace Lipid								
Lipid	**0.64**	%	0.030	0.030	1		02/27/18 07:05		

REPORT OF LABORATORY ANALYSIS

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1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40151542

Sample: TD3-170612-01-SMB-05 **Lab ID: 40151542002** Collected: 06/12/17 16:09 Received: 06/13/17 09:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<114**	ug/kg	501	114	10	02/27/18 06:56	02/28/18 10:09	12674-11-2	
PCB-1221 (Aroclor 1221)	**<114**	ug/kg	501	114	10	02/27/18 06:56	02/28/18 10:09	11104-28-2	
PCB-1232 (Aroclor 1232)	**<114**	ug/kg	501	114	10	02/27/18 06:56	02/28/18 10:09	11141-16-5	
PCB-1242 (Aroclor 1242)	**<114**	ug/kg	501	114	10	02/27/18 06:56	02/28/18 10:09	53469-21-9	
PCB-1248 (Aroclor 1248)	**1900**	ug/kg	501	114	10	02/27/18 06:56	02/28/18 10:09	12672-29-6	
PCB-1254 (Aroclor 1254)	**1980**	ug/kg	501	114	10	02/27/18 06:56	02/28/18 10:09	11097-69-1	
PCB-1260 (Aroclor 1260)	**392J**	ug/kg	501	114	10	02/27/18 06:56	02/28/18 10:09	11096-82-5	
PCB, Total	**4280**	ug/kg	501	114	10	02/27/18 06:56	02/28/18 10:09	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	81	%	60-140		10	02/27/18 06:56	02/28/18 10:09	877-09-8	
Decachlorobiphenyl (S)	105	%	60-140		10	02/27/18 06:56	02/28/18 10:09	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Female**				1		02/15/18 15:49		
Lipid	Analytical Method: Pace Lipid								
Lipid	**0.37**	%	0.030	0.030	1		02/27/18 07:05		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40151542

Sample: TD3-170612-01-SMB-04 **Lab ID: 40151542003** Collected: 06/12/17 16:07 Received: 06/13/17 09:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<45.5**	ug/kg	199	45.5	4	02/27/18 06:56	02/28/18 10:25	12674-11-2	
PCB-1221 (Aroclor 1221)	**<45.5**	ug/kg	199	45.5	4	02/27/18 06:56	02/28/18 10:25	11104-28-2	
PCB-1232 (Aroclor 1232)	**<45.5**	ug/kg	199	45.5	4	02/27/18 06:56	02/28/18 10:25	11141-16-5	
PCB-1242 (Aroclor 1242)	**<45.5**	ug/kg	199	45.5	4	02/27/18 06:56	02/28/18 10:25	53469-21-9	
PCB-1248 (Aroclor 1248)	**1010**	ug/kg	199	45.5	4	02/27/18 06:56	02/28/18 10:25	12672-29-6	
PCB-1254 (Aroclor 1254)	**584**	ug/kg	199	45.5	4	02/27/18 06:56	02/28/18 10:25	11097-69-1	
PCB-1260 (Aroclor 1260)	**103J**	ug/kg	199	45.5	4	02/27/18 06:56	02/28/18 10:25	11096-82-5	
PCB, Total	**1700**	ug/kg	199	45.5	4	02/27/18 06:56	02/28/18 10:25	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	84	%	60-140		4	02/27/18 06:56	02/28/18 10:25	877-09-8	
Decachlorobiphenyl (S)	101	%	60-140		4	02/27/18 06:56	02/28/18 10:25	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Female**				1		02/15/18 15:49		
Lipid	Analytical Method: Pace Lipid								
Lipid	**0.70**	%	0.030	0.030	1		02/27/18 07:05		

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40151542

Sample: TD3-170612-01-SMB-03 **Lab ID: 40151542004** Collected: 06/12/17 16:05 Received: 06/13/17 09:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<114**	ug/kg	500	114	10	02/27/18 06:56	02/28/18 10:41	12674-11-2	
PCB-1221 (Aroclor 1221)	**<114**	ug/kg	500	114	10	02/27/18 06:56	02/28/18 10:41	11104-28-2	
PCB-1232 (Aroclor 1232)	**<114**	ug/kg	500	114	10	02/27/18 06:56	02/28/18 10:41	11141-16-5	
PCB-1242 (Aroclor 1242)	**<114**	ug/kg	500	114	10	02/27/18 06:56	02/28/18 10:41	53469-21-9	M1
PCB-1248 (Aroclor 1248)	**1170**	ug/kg	500	114	10	02/27/18 06:56	02/28/18 10:41	12672-29-6	
PCB-1254 (Aroclor 1254)	**1690**	ug/kg	500	114	10	02/27/18 06:56	02/28/18 10:41	11097-69-1	
PCB-1260 (Aroclor 1260)	**970**	ug/kg	500	114	10	02/27/18 06:56	02/28/18 10:41	11096-82-5	
PCB, Total	**3830**	ug/kg	500	114	10	02/27/18 06:56	02/28/18 10:41	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	76	%	60-140		10	02/27/18 06:56	02/28/18 10:41	877-09-8	
Decachlorobiphenyl (S)	105	%	60-140		10	02/27/18 06:56	02/28/18 10:41	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Male**				1		02/15/18 15:50		
Lipid	Analytical Method: Pace Lipid								
Lipid	**0.38**	%	0.030	0.030	1		02/27/18 07:05		

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40151542

Sample: TD3-170612-01-SMB-02 **Lab ID: 40151542005** Collected: 06/12/17 16:03 Received: 06/13/17 09:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<57.2**	ug/kg	251	57.2	5	02/27/18 06:56	02/28/18 10:57	12674-11-2	
PCB-1221 (Aroclor 1221)	**<57.2**	ug/kg	251	57.2	5	02/27/18 06:56	02/28/18 10:57	11104-28-2	
PCB-1232 (Aroclor 1232)	**<57.2**	ug/kg	251	57.2	5	02/27/18 06:56	02/28/18 10:57	11141-16-5	
PCB-1242 (Aroclor 1242)	**<57.2**	ug/kg	251	57.2	5	02/27/18 06:56	02/28/18 10:57	53469-21-9	
PCB-1248 (Aroclor 1248)	**1060**	ug/kg	251	57.2	5	02/27/18 06:56	02/28/18 10:57	12672-29-6	
PCB-1254 (Aroclor 1254)	**1080**	ug/kg	251	57.2	5	02/27/18 06:56	02/28/18 10:57	11097-69-1	
PCB-1260 (Aroclor 1260)	**200J**	ug/kg	251	57.2	5	02/27/18 06:56	02/28/18 10:57	11096-82-5	
PCB, Total	**2340**	ug/kg	251	57.2	5	02/27/18 06:56	02/28/18 10:57	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	73	%	60-140		5	02/27/18 06:56	02/28/18 10:57	877-09-8	
Decachlorobiphenyl (S)	93	%	60-140		5	02/27/18 06:56	02/28/18 10:57	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Male**				1		02/15/18 15:50		
Lipid	Analytical Method: Pace Lipid								
Lipid	**0.16**	%	0.030	0.030	1		02/27/18 07:05		

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40151542

Sample: TD3-170612-01-SMB-01 **Lab ID: 40151542006** Collected: 06/12/17 16:01 Received: 06/13/17 09:30 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<34.2**	ug/kg	150	34.2	3	02/27/18 06:56	02/28/18 11:13	12674-11-2	
PCB-1221 (Aroclor 1221)	**<34.2**	ug/kg	150	34.2	3	02/27/18 06:56	02/28/18 11:13	11104-28-2	
PCB-1232 (Aroclor 1232)	**<34.2**	ug/kg	150	34.2	3	02/27/18 06:56	02/28/18 11:13	11141-16-5	
PCB-1242 (Aroclor 1242)	**<34.2**	ug/kg	150	34.2	3	02/27/18 06:56	02/28/18 11:13	53469-21-9	
PCB-1248 (Aroclor 1248)	**564**	ug/kg	150	34.2	3	02/27/18 06:56	02/28/18 11:13	12672-29-6	
PCB-1254 (Aroclor 1254)	**357**	ug/kg	150	34.2	3	02/27/18 06:56	02/28/18 11:13	11097-69-1	
PCB-1260 (Aroclor 1260)	**101J**	ug/kg	150	34.2	3	02/27/18 06:56	02/28/18 11:13	11096-82-5	
PCB, Total	**1020**	ug/kg	150	34.2	3	02/27/18 06:56	02/28/18 11:13	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	64	%	60-140		3	02/27/18 06:56	02/28/18 11:13	877-09-8	
Decachlorobiphenyl (S)	77	%	60-140		3	02/27/18 06:56	02/28/18 11:13	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Female**				1		02/15/18 15:50		
Lipid	Analytical Method: Pace Lipid								
Lipid	**0.62**	%	0.030	0.030	1		02/27/18 07:05		

REPORT OF LABORATORY ANALYSIS

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C. SDG 40151619

ENVIRONMENTAL STANDARDS

ORGANIC ANALYSIS SUPPORT DOCUMENTATION

ESI project name:	GEHR RAMP	Reviewed by:	JA 5/31/18
Sample Collection Dates:	6/13/17	Approved by:	
Job Number:	20115678.H000	Completion Date:	6/18
Project Manager:	Meg Michell		
Laboratory:	Pace GB	Applicable Sample No's (X)	Refer to Table 1 in the Quality Assurance Review

			Sample No.	Lab Control No.
Deliverable:	CLP (Full)	( )	Refer to Table 1	
	Level IV (Full)	( )		
	Limited	( )		
	Other:	Full Per Phase 2 RAMP QAPP		

The following table indicates criteria that were examined, the identified problems, and support documentation attachments

	Criteria Examined in Detail Check (√) if Yes or Footnote Letter for Comments Below					Problems Identified Check (√) if Yes or Footnote Letter for Comments Below					Support Documentation Attachments Check (√) if Yes or Footnote Letter for Comments Below				
	8082A					8082A					8082A				
Holding Times	X										X				
Blank Analysis: Target Cmpds	X										X				
Sys Montr Cmps/Surrogates	X										X				
Matrix Spike/Matrix Spike Duplicate	X										X				
Blank Spike	X										X				
Duplicate Analysis ( ) Field (X) Lab	X										X				
Detection Limit/Sensitivity															
Qualitative Identification: Target Cmpds	X										X				
Qualitative Identification: TICs															
DFTPP & BFB Mass Tuning															
GC Instrument Performance															
Initial Calibrations	X										X				
Continuing Calibrations	X										X				
Quantitation of Results	X					X					X				
DDT/Endrin Breakdown															
Surrogate Retention Time Shifts	X										X				
Internal Standards Performance															
Resolution Check Standards															
Analytical Sequence	X										X				
Florisil Cartridge & GPC Calibration															
GC Column Agreement															
Condition Upon Receipt	X										X				
Percent Solids															
Others:															

Comments: Results < RL should be considered estimated. Total PCB results calculated with estimated Aroclor results should be considered estimated.

PCB - FORM II SVOA-1
TISSUE SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Green Bay SDG No.: 40151619 Contract: HUDSON RIVER REMEDIAL

Instrument ID: 40GCSJ

LAB SAMPLE ID	SAMPLE NAME	DCBP	TCMX
1662163	1662163BLANK	91	77
1662164	1662164LCS	91	78
1662165	1662165MS	90	84
1662166	1662166DUP	87	84
40151619001	SW1-170613-01-YP-05	87	89
40151619002	SW1-170613-01-YP-04	92	89
40151619003	SW1-170613-01-YP-03	88	86
40151619004	SW1-170613-01-YP-02	97	95

	QC LIMITS
(DCBP) = Decachlorobiphenyl (S)	(60-140)
(TCMX) = Tetrachloro-m-xylene (S)	(60-140)

* Values outside of QC Limits

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QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION
Pace Project No.: 40151619

QC Batch: 283977 Analysis Method: EPA 8082A Mod
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 40151619001, 40151619002, 40151619003, 40151619004

METHOD BLANK: 1662163 Matrix: Tissue
Associated Lab Samples: 40151619001, 40151619002, 40151619003, 40151619004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<11.4	50.0	11.4	03/23/18 13:57	
PCB-1221 (Aroclor 1221)	ug/kg	<11.4	50.0	11.4	03/23/18 13:57	
PCB-1232 (Aroclor 1232)	ug/kg	<11.4	50.0	11.4	03/23/18 13:57	
PCB-1242 (Aroclor 1242)	ug/kg	<11.4	50.0	11.4	03/23/18 13:57	
PCB-1248 (Aroclor 1248)	ug/kg	<11.4	50.0	11.4	03/23/18 13:57	
PCB-1254 (Aroclor 1254)	ug/kg	<11.4	50.0	11.4	03/23/18 13:57	
PCB-1260 (Aroclor 1260)	ug/kg	<11.4	50.0	11.4	03/23/18 13:57	
Decachlorobiphenyl (S)	%	91	60-140		03/23/18 13:57	
Tetrachloro-m-xylene (S)	%	77	60-140		03/23/18 13:57	

LABORATORY CONTROL SAMPLE: 1662164

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<11.4			
PCB-1221 (Aroclor 1221)	ug/kg		<11.4			
PCB-1232 (Aroclor 1232)	ug/kg		<11.4			
PCB-1242 (Aroclor 1242)	ug/kg	250	240	96	70-130	
PCB-1248 (Aroclor 1248)	ug/kg		<11.4			
PCB-1254 (Aroclor 1254)	ug/kg		<11.4			
PCB-1260 (Aroclor 1260)	ug/kg		<11.4			
Decachlorobiphenyl (S)	%			91	60-140	
Tetrachloro-m-xylene (S)	%			78	60-140	

MATRIX SPIKE SAMPLE: 1662165

Parameter	Units	40151619002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<11.4		<22.9			1q
PCB-1221 (Aroclor 1221)	ug/kg	<11.4		<22.9			
PCB-1232 (Aroclor 1232)	ug/kg	<11.4		<22.9			
PCB-1242 (Aroclor 1242)	ug/kg	<11.4	251	308	123	70-130	
PCB-1248 (Aroclor 1248)	ug/kg	284		439			
PCB-1254 (Aroclor 1254)	ug/kg	183		209			
PCB-1260 (Aroclor 1260)	ug/kg	41.4J		46.7J			
Decachlorobiphenyl (S)	%				90	60-140	
Tetrachloro-m-xylene (S)	%				84	60-140	

see Form 3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION
Pace Project No.: 40151619

SAMPLE DUPLICATE: 1662166

Parameter	Units	40151619002 Result	Dup Result	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<11.4	<11.4		40	
PCB-1221 (Aroclor 1221)	ug/kg	<11.4	<11.4		40	
PCB-1232 (Aroclor 1232)	ug/kg	<11.4	<11.4		40	
PCB-1242 (Aroclor 1242)	ug/kg	<11.4	<11.4		40	
PCB-1248 (Aroclor 1248)	ug/kg	284	305	7	40	
PCB-1254 (Aroclor 1254)	ug/kg	183	201	10	40	
PCB-1260 (Aroclor 1260)	ug/kg	41.4J	48.5J		40	
Decachlorobiphenyl (S)	%	92	87	6		
Tetrachloro-m-xylene (S)	%	89	84	5		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION
Pace Project No.: 40151619

QC Batch: 284080 Analysis Method: Pace Lipid
QC Batch Method: Pace Lipid Analysis Description: LIPID
Associated Lab Samples: 40151619001, 40151619002, 40151619003, 40151619004

METHOD BLANK: 1662744 Matrix: Tissue
Associated Lab Samples: 40151619001, 40151619002, 40151619003, 40151619004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lipid	%	<0.030	0.030	0.030	03/23/18 06:20	

MATRIX SPIKE SAMPLE: 1682565

Parameter	Units	40151619002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lipid	%	0.70		0.76			

SAMPLE DUPLICATE: 1662747

Parameter	Units	40151619002 Result	Dup Result	RPD	Max RPD	Qualifiers
Lipid	%	0.70	0.81	14	40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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PCB - FORM III SVOA-1

TISSUE SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Green Bay
Matrix Spike - Sample No: 1662165MS

Date Extracted: 03/22/2018
Date Analyzed (1): 03/27/2018

Instrument: 40GCSJ
Lab File ID: 032718.B\032718007.D

Parent Sample ID: SW1-170613-01-YP-04
SDG No.: 40151619

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
PCB-1242 (Aroclor 1242)	251 ✓	<11.4	308 ✓	123 ✓	70-130

50
49.3

103%
No goal for MS

See attached spreadsheet
for re-calc.

Spike Recovery: 0 out of 1 outside limits.

05/10/2018 4:45

Sample SW1-170613-01-YP-04

Wt = 10.023 **DF =** 1

		Area	*Avg CF*	**On Column**	**Peak Result**	**Aroclor Result**
A1242	PCB-6	58356	*2533198.700*	0.02	11	**49** ug/kg
	PCB-7	281670	*2520033.450*	0.11	56	
	PCB-8	1228019	*7116457.950*	0.17	86	
	PCB-9	135317	*3041534.650*	0.04	22	
	PCB-10	291719	*2047746.900*	0.14	71	
				(Area / Avg CF)	(On Column * DF * 5000/Wt)	(Avg of 5 Peak Results)

Recalc MS %Rec

Spike Added	251 ug/kg
Sample Conc.	49 ug/kg
MS Conc.	308 ug/kg
MS %Rec	**103%**

SAMPLE NO.

DUP

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay
Contract: HUDSON RIVER REMEDIAL ACTION

Date Received: 06/14/2017 ~~15:21~~ 0950
Matrix: Tissue SDG No.: 40151619

Date Extracted: 03/22/2018 07:22
Lab Sample ID: 1662166

Date Analyzed: 03/23/2018 17:23
Lab File ID: 032318.B\032318019.D

Initial wt/vol: 9.9773 g ✓ Final wt/vol: 5 mL Dilution: 1 ✓
Instrument: 40GCSJ Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	<11.4	U
11104-28-2	PCB-1221 (Aroclor 1221)	<11.4	U
11141-16-5	PCB-1232 (Aroclor 1232)	<11.4	U
53469-21-9	PCB-1242 (Aroclor 1242)	<11.4 ✓	U
12672-29-6	PCB-1248 (Aroclor 1248)	305 ✓	
11097-69-1	PCB-1254 (Aroclor 1254)	201 ✓	
11096-82-5	PCB-1260 (Aroclor 1260)	48.5 ✓	J

PCB - FORM III SVOA-1

TISSUE SEMI-VOLATILE SAMPLE/DUPLICATE RECOVERY

Lab Name: Pace Analytical - Green Bay
Date Extracted: 03/22/2018
Instrument 40GCSJ
Lab Sample ID: SW1-170613-01-YP-04

Duplicate Sample No: 40151619002DUP
Date Analyzed: 03/23/2018
Lab File ID: 032318.B\032318019.D
SDG No.: 40151619

COMPOUND	SAMPLE CONCENTRATION (ug/kg)	DUPLICATE CONCENTRATION (ug/kg)	RPD	RPD LIMITS
PCB-1016 (Aroclor 1016)	<11.4	<11.4		0-40
PCB-1221 (Aroclor 1221)	<11.4	<11.4		0-40
PCB-1232 (Aroclor 1232)	<11.4	<11.4		0-40
PCB-1242 (Aroclor 1242)	<11.4	<11.4		0-40
PCB-1248 (Aroclor 1248)	284 ✓	305 ✓	7 ✓	0-40
PCB-1254 (Aroclor 1254)	183 ✓	201 ✓	10	0-40
PCB-1260 (Aroclor 1260)	41.4J ✓	48.5J ✓		0-40

✓

RPD: 0 out of 2 outside limits.

05/10/2018 4:45

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40151619

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 12:07 19:39

LAB FILE ID

CAL1A =	030618.B\030618058.D	CAL1B =	030618.B\030618022.D	CAL1C =	030618.B\030618046.D
CAL1D =	030618.B\030618034.D	CAL1F =	030618.B\030618010.D	CAL2A =	030618.B\030618060.D
CAL2B =	030618.B\030618024.D	CAL2C =	030618.B\030618048.D	CAL2D =	030618.B\030618036.D
CAL2F =	030618.B\030618012.D	CAL3A =	030618.B\030618062.D	CAL3B =	030618.B\030618026.D
CAL3C =	030618.B\030618050.D	CAL3D =	030618.B\030618038.D	CAL3F =	030618.B\030618014.D
CAL4A =	030618.B\030618064.D	CAL4B =	030618.B\030618028.D	CAL4C =	030618.B\030618052.D
CAL4D =	030618.B\030618040.D	CAL4F =	030618.B\030618016.D	CAL5A =	030618.B\030618066.D
CAL5B =	030618.B\030618030.D	CAL5C =	030618.B\030618054.D	CAL5D =	030618.B\030618042.D
CAL5F =	030618.B\030618018.D				

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5
Aroclor 1016	1	Averaged	3346700.00	3270300.00	3026998.00	2916970.00	2843185.00
Aroclor 1016	2	Averaged	3361310.00	3225075.00	3064774.00	2953430.00	2890423.00
Aroclor 1016	3	Averaged	9619090.00	9294970.00	8629258.00	8432580.00	8333033.00
Aroclor 1016	4	Averaged	4072990.00	3972810.00	3750126.00	3581221.25	3523970.00
Aroclor 1016	5	Averaged	2912980.00	2694260.00	2551278.00	2433447.50	2424781.00
Aroclor 1221	1	Averaged	1168840.00	1110755.00	980478.000	981937.500	964273.000
Aroclor 1221	2	Averaged	612180.000	587450.000	526622.000	511427.500	501535.000
Aroclor 1221	3	Averaged	1505110.00	1446635.00	1316246.00	1333917.50	1314775.00
Aroclor 1221	4	Averaged	1181440.00	1150255.00	1038526.00	1067413.75	1091213.00
Aroclor 1221	5	Averaged	3492190.00	3470535.00	3167038.00	3088411.25	3058814.00
Aroclor 1242	1	Averaged	2772560.00	2688000.00	2505132.00	2371062.50	2329239.00
Aroclor 1242	2	Averaged	2739500.00	2600755.00	2506348.00	2392166.25	2361398.00
Aroclor 1242	3	Averaged	7695890.00	7473100.00	6971326.00	6735328.75	6706645.00
Aroclor 1242	4	Averaged	3287540.00	3169245.00	3017986.00	2875101.25	2857801.00
Aroclor 1242	5	Averaged	2247420.00	2077595.00	2062930.00	1928282.50	1922507.00
Aroclor 1248	1	Averaged	2522640.00	2478140.00	2346396.00	2184111.25	2183582.00
Aroclor 1248	2	Averaged	4441400.00	4466680.00	4104774.00	3847133.75	3891542.00
Aroclor 1248	3	Averaged	2175950.00	2100970.00	2034380.00	1911980.00	1927121.00
Aroclor 1248	4	Averaged	5384910.00	5302865.00	5054976.00	4695606.25	4748871.00
Aroclor 1248	5	Averaged	3757360.00	3770200.00	3588002.00	3386248.75	3440920.00
Aroclor 1254	1	Averaged	5783370.00	5652575.00	5120584.00	4858101.25	4761607.00
Aroclor 1254	2	Averaged	4616750.00	4581855.00	4225042.00	4064631.25	4016994.00
Aroclor 1254	3	Averaged	8435240.00	8286960.00	7623568.00	7277021.25	7207530.00
Aroclor 1254	4	Averaged	5140880.00	5151350.00	4826428.00	4638268.75	4591491.00
Aroclor 1254	5	Averaged	7015020.00	6981970.00	6368818.00	6122333.75	6047377.00
Aroclor 1260	1	Averaged	9569990.00	9323545.00	8657528.00	8388552.50	8372147.00
Aroclor 1260	2	Averaged	10746610.0	10429350.0	9816406.00	9526972.50	9552528.00
Aroclor 1260	3	Averaged	5052370.00	4986225.00	4721308.00	4577403.75	4561709.00
Aroclor 1260	4	Averaged	3131020.00	3037915.00	2887698.00	2771190.00	2747730.00

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/11/2018 11:07

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40151619

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 12:07 19:39

LAB FILE ID

CAL1A = 030618.B\030618058.D CAL1B = 030618.B\030618022.D CAL1C = 030618.B\030618046.D

CAL1D = 030618.B\030618034.D CAL1F = 030618.B\030618010.D CAL2A = 030618.B\030618060.D

CAL2B = 030618.B\030618024.D CAL2C = 030618.B\030618048.D CAL2D = 030618.B\030618036.D

CAL2F = 030618.B\030618012.D CAL3A = 030618.B\030618062.D CAL3B = 030618.B\030618026.D

CAL3C = 030618.B\030618050.D CAL3D = 030618.B\030618038.D CAL3F = 030618.B\030618014.D

CAL4A = 030618.B\030618064.D CAL4B = 030618.B\030618028.D CAL4C = 030618.B\030618052.D

CAL4D = 030618.B\030618040.D CAL4F = 030618.B\030618016.D CAL5A = 030618.B\030618066.D

CAL5B = 030618.B\030618030.D CAL5C = 030618.B\030618054.D CAL5D = 030618.B\030618042.D

CAL5F = 030618.B\030618018.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5
Aroclor 1260	5	Averaged	2853590.00	2718235.00	2625044.00	2511683.75	2485127.00
Decachlorobiphenyl (S)		Averaged	125223400.	114228350.	106255020.	101602250.	100490933.
Tetrachloro-m-xylene		Averaged	126550100.	124974300.	121144740.	121809550.	121996840.

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40151619

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 12:07 19:39

LAB FILE ID

CAL1A = 030618.B\030618058.D CAL1B = 030618.B\030618022.D CAL1C = 030618.B\030618046.D

CAL1D = 030618.B\030618034.D CAL1F = 030618.B\030618010.D CAL2A = 030618.B\030618060.D

CAL2B = 030618.B\030618024.D CAL2C = 030618.B\030618048.D CAL2D = 030618.B\030618036.D

CAL2F = 030618.B\030618012.D CAL3A = 030618.B\030618062.D CAL3B = 030618.B\030618026.D

CAL3C = 030618.B\030618050.D CAL3D = 030618.B\030618038.D CAL3F = 030618.B\030618014.D

CAL4A = 030618.B\030618064.D CAL4B = 030618.B\030618028.D CAL4C = 030618.B\030618052.D

CAL4D = 030618.B\030618040.D CAL4F = 030618.B\030618016.D CAL5A = 030618.B\030618066.D

CAL5B = 030618.B\030618030.D CAL5C = 030618.B\030618054.D CAL5D = 030618.B\030618042.D

CAL5F = 030618.B\030618018.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	7.12			3080830.60	
Aroclor 1016	2	Averaged	6.26			3099002.40	
Aroclor 1016	3	Averaged	6.38			8861786.20	
Aroclor 1016	4	Averaged	6.32			3780223.45	
Aroclor 1016	5	Averaged	7.86			2603349.30	
Aroclor 1221	1	Averaged	8.88			1041256.70	
Aroclor 1221	2	Averaged	8.95			547842.90	
Aroclor 1221	3	Averaged	6.31			1383336.70	
Aroclor 1221	4	Averaged	5.33			1105769.55	
Aroclor 1221	5	Averaged	6.45			3255397.65	
Aroclor 1242	1	Averaged	7.64			2533198.70	
Aroclor 1242	2	Averaged	6.15			2520033.45	
Aroclor 1242	3	Averaged	6.27			7116457.95	
Aroclor 1242	4	Averaged	6.12			3041534.65	
Aroclor 1242	5	Averaged	6.50			2047746.90	
Aroclor 1248	1	Averaged	6.78	✓		2342973.85	✓
Aroclor 1248	2	Averaged	7.08	✓		4150305.95	✓
Aroclor 1248	3	Averaged	5.55	✓		2030080.20	✓
Aroclor 1248	4	Averaged	6.21	✓		5037445.65	✓
Aroclor 1248	5	Averaged	4.91	✓		3588546.15	✓
Aroclor 1254	1	Averaged	8.82	✓		5235247.45	✓
Aroclor 1254	2	Averaged	6.58			4301054.45	
Aroclor 1254	3	Averaged	7.31			7766063.85	
Aroclor 1254	4	Averaged	5.48			4869683.55	
Aroclor 1254	5	Averaged	7.13			6507103.75	
Aroclor 1260	1	Averaged	6.23			8862352.50	
Aroclor 1260	2	Averaged	5.46	✓		10014373.30	✓
Aroclor 1260	3	Averaged	4.78			4779803.15	
Aroclor 1260	4	Averaged	5.71			2915110.60	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

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05/11/2018 11:07

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40151619

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 12:07 19:39

LAB FILE ID

CAL1A =	030618.B\030618058.D	CAL1B =	030618.B\030618022.D	CAL1C =	030618.B\030618046.D
CAL1D =	030618.B\030618034.D	CAL1F =	030618.B\030618010.D	CAL2A =	030618.B\030618060.D
CAL2B =	030618.B\030618024.D	CAL2C =	030618.B\030618048.D	CAL2D =	030618.B\030618036.D
CAL2F =	030618.B\030618012.D	CAL3A =	030618.B\030618062.D	CAL3B =	030618.B\030618026.D
CAL3C =	030618.B\030618050.D	CAL3D =	030618.B\030618038.D	CAL3F =	030618.B\030618014.D
CAL4A =	030618.B\030618064.D	CAL4B =	030618.B\030618028.D	CAL4C =	030618.B\030618052.D
CAL4D =	030618.B\030618040.D	CAL4F =	030618.B\030618016.D	CAL5A =	030618.B\030618066.D
CAL5B =	030618.B\030618030.D	CAL5C =	030618.B\030618054.D	CAL5D =	030618.B\030618042.D
CAL5F =	030618.B\030618018.D				

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1260	5	Averaged	5.76			2638735.95	
Decachlorobiphenyl (S)		Averaged	9.39			109559990.6	
Tetrachloro-m-xylene		Averaged	1.89			123295106.0	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40151619

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 12:07 19:39

LAB FILE ID

CAL1A = 030618.B\030618058.D CAL1B = 030618.B\030618022.D CAL1C = 030618.B\030618046.D

CAL1D = 030618.B\030618034.D CAL1F = 030618.B\030618010.D CAL2A = 030618.B\030618060.D

CAL2B = 030618.B\030618024.D CAL2C = 030618.B\030618048.D CAL2D = 030618.B\030618036.D

CAL2F = 030618.B\030618012.D CAL3A = 030618.B\030618062.D CAL3B = 030618.B\030618026.D

CAL3C = 030618.B\030618050.D CAL3D = 030618.B\030618038.D CAL3F = 030618.B\030618014.D

CAL4A = 030618.B\030618064.D CAL4B = 030618.B\030618028.D CAL4C = 030618.B\030618052.D

CAL4D = 030618.B\030618040.D CAL4F = 030618.B\030618016.D CAL5A = 030618.B\030618066.D

CAL5B = 030618.B\030618030.D CAL5C = 030618.B\030618054.D CAL5D = 030618.B\030618042.D

CAL5F = 030618.B\030618018.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	RT	RT WINDOW	
								FROM	TO
Aroclor 1016	1	3.318	3.317	3.317	3.317	3.318	3.318	3.284	3.352
Aroclor 1016	2	3.513	3.513	3.512	3.512	3.512	3.512	3.478	3.546
Aroclor 1016	3	3.826	3.826	3.826	3.826	3.826	3.826	3.792	3.86
Aroclor 1016	4	3.928	3.929	3.928	3.929	3.928	3.929	3.895	3.963
Aroclor 1016	5	3.995	3.994	3.994	3.995	3.994	3.994	3.96	4.028
Aroclor 1221	1	1.803	1.804	1.804	1.804	1.806	1.804	1.77	1.838
Aroclor 1221	2	2.406	2.407	2.407	2.407	2.407	2.407	2.373	2.441
Aroclor 1221	3	2.687	2.688	2.688	2.688	2.688	2.688	2.654	2.722
Aroclor 1221	4	2.789	2.789	2.79	2.789	2.789	2.789	2.755	2.823
Aroclor 1221	5	2.851	2.851	2.851	2.851	2.851	2.851	2.817	2.885
Aroclor 1242	1	3.318	3.318	3.317	3.318	3.318	3.318	3.284	3.352
Aroclor 1242	2	3.513	3.513	3.513	3.513	3.513	3.513	3.479	3.547
Aroclor 1242	3	3.826	3.826	3.827	3.827	3.827	3.827	3.793	3.861
Aroclor 1242	4	3.928	3.929	3.929	3.93	3.929	3.929	3.895	3.963
Aroclor 1242	5	3.995	3.994	3.995	3.995	3.994	3.995	3.961	4.029
Aroclor 1248	1	4.261	4.261	4.261	4.261	4.261	4.261	4.227	4.295
Aroclor 1248	2	4.546	4.545	4.545	4.545	4.545	4.546	4.512	4.58
Aroclor 1248	3	4.814	4.813	4.813	4.813	4.813	4.812	4.778	4.846
Aroclor 1248	4	4.879	4.878	4.879	4.878	4.879	4.879	4.845	4.913
Aroclor 1248	5	5.037	5.036	5.037	5.038	5.037	5.038	5.004	5.072
Aroclor 1254	1	5.163	5.162	5.163	5.162	5.163	5.162	5.128	5.196
Aroclor 1254	2	5.408	5.407	5.407	5.407	5.407	5.408	5.374	5.442
Aroclor 1254	3	5.51	5.51	5.51	5.509	5.51	5.51	5.476	5.544
Aroclor 1254	4	6.026	6.026	6.026	6.027	6.027	6.027	5.993	6.061
Aroclor 1254	5	6.299	6.299	6.299	6.299	6.299	6.299	6.265	6.333
Aroclor 1260	1	6.3	6.3	6.299	6.3	6.299	6.3	6.266	6.334
Aroclor 1260	2	7.006	7.006	7.005	7.005	7.005	7.006	6.972	7.04
Aroclor 1260	3	7.252	7.252	7.251	7.252	7.251	7.251	7.217	7.285

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40151619

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 12:07 19:39

LAB FILE ID

CAL1A =	030618.B\030618058.D	CAL1B =	030618.B\030618022.D	CAL1C =	030618.B\030618046.D
CAL1D =	030618.B\030618034.D	CAL1F =	030618.B\030618010.D	CAL2A =	030618.B\030618060.D
CAL2B =	030618.B\030618024.D	CAL2C =	030618.B\030618048.D	CAL2D =	030618.B\030618036.D
CAL2F =	030618.B\030618012.D	CAL3A =	030618.B\030618062.D	CAL3B =	030618.B\030618026.D
CAL3C =	030618.B\030618050.D	CAL3D =	030618.B\030618038.D	CAL3F =	030618.B\030618014.D
CAL4A =	030618.B\030618064.D	CAL4B =	030618.B\030618028.D	CAL4C =	030618.B\030618052.D
CAL4D =	030618.B\030618040.D	CAL4F =	030618.B\030618016.D	CAL5A =	030618.B\030618066.D
CAL5B =	030618.B\030618030.D	CAL5C =	030618.B\030618054.D	CAL5D =	030618.B\030618042.D
CAL5F =	030618.B\030618018.D				

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	RT	RT WINDOW	
								FROM	TO
Aroclor 1260	4	7.444	7.443	7.443	7.443	7.443	7.443	7.409	7.477
Aroclor 1260	5	7.902	7.9	7.901	7.901	7.9	7.901	7.867	7.935
Decachlorobiphenyl (S)		8.572	8.572	8.571	8.571	8.571	8.571	8.537	8.605
Tetrachloro-m-xylene		2.485	2.484	2.484	2.484	2.485	2.484	2.45	2.518

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40151619

Calibration Date(s): 03/06/2018 Calibration Time(s): 11:50

LAB FILE ID

CAL3S = 030618.B\030618008.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.5	1	2.851	2.817	2.885	2500024.00
Aroclor 1232	.5	2	3.513	3.479	3.547	1339782.00
Aroclor 1232	.5	3	3.827	3.793	3.861	3749726.00
Aroclor 1232	.5	4	3.929	3.895	3.963	1606492.00
Aroclor 1232	.5	5	3.995	3.961	4.029	1091876.00

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB Low Level Calibration % Difference Check

Lab Name: Pace Analytical - Green Bay
Instrument ID: 40GCSJ
Calibration Date: 3/6/2018

Aroclor	True Value	Abundance Concentration	% Difference	Acceptance Criteria %	Pass/Fail
AR1221-CAL1	.1	0.109383	9.383	20	Pass
AR1242-CAL1	.1	0.108828	8.828	20	Pass
AR1248-CAL1	.1	0.106694	6.694	20	Pass
AR1254-CAL1	.1	0.10796	7.96	20	Pass
AR1016-CAL1	.1	0.109056	9.056	20	Pass
AR1260-CAL1	.1	0.10731	7.31	20	Pass

SAMPLE NO.

10757904ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 20:11

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618070.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40151619

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1221	1	Averaged	1.804	1.77	1.838	1041256.70	1074308.00	3.1742
Aroclor 1221	2	Averaged	2.407	2.373	2.441	547842.900	558458.000	1.9376
Aroclor 1221	3	Averaged	2.688	2.654	2.722	1383336.70	1446642.00	4.5763
Aroclor 1221	4	Averaged	2.789	2.755	2.823	1105769.55	1114194.00	0.7619
Aroclor 1221	5	Averaged	2.851	2.817	2.885	3255397.65	3446964.00	5.8846
Decachlorobiphenyl (S)		Averaged	8.571	8.537	8.605	109559990.	106438520.	-2.8491
Tetrachloro-m-xylene		Averaged	2.484	2.45	2.518	123295106.	119469080.	-3.1031

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

10757932ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 20:27

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618072.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40151619

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1242	1	Averaged	3.317	3.284	3.352	2533198.70	2574948.00	1.6481
Aroclor 1242	2	Averaged	3.513	3.479	3.547	2520033.45	2587724.00	2.6861
Aroclor 1242	3	Averaged	3.825	3.793	3.861	7116457.95	7162442.00	0.6462
Aroclor 1242	4	Averaged	3.928	3.895	3.963	3041534.65	3109342.00	2.2294
Aroclor 1242	5	Averaged	3.993	3.961	4.029	2047746.90	2082504.00	1.6973
Decachlorobiphenyl (S)		Averaged	8.571	8.537	8.605	109559990.	100680260.	-8.1049
Tetrachloro-m-xylene		Averaged	2.484	2.45	2.518	123295106.	117472720.	-4.7223

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

10757923ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 20:44

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618074.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40151619

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1248	1	Averaged	4.261	4.227	4.295	2342973.85	2416006.00	3.1171
Aroclor 1248	2	Averaged	4.545	4.512	4.58	4150305.95	4272006.00	2.9323
Aroclor 1248	3	Averaged	4.813	4.778	4.846	2030080.20	2145142.00	5.6678
Aroclor 1248	4	Averaged	4.879	4.845	4.913	5037445.65	5257174.00	4.3619
Aroclor 1248	5	Averaged	5.037	5.004	5.072	3588546.15	3781714.00	5.3829
Decachlorobiphenyl (S)		Averaged	8.57	8.537	8.605	109559990.	103468660.	-5.5598
Tetrachloro-m-xylene		Averaged	2.485	2.45	2.518	123295106.	117995220.	-4.2985

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

10757930ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 21:00

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618076.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40151619

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1254	1	Averaged	5.162	5.128	5.196	5235247.45	4908596.00	-6.2395
Aroclor 1254	2	Averaged	5.406	5.374	5.442	4301054.45	4023996.00	-6.4416
Aroclor 1254	3	Averaged	5.51	5.476	5.544	7766063.85	7114120.00	-8.3948
Aroclor 1254	4	Averaged	6.026	5.993	6.061	4869683.55	4559312.00	-6.3735
Aroclor 1254	5	Averaged	6.299	6.265	6.333	6507103.75	6351522.00	-2.3910
Decachlorobiphenyl (S)		Averaged	8.571	8.537	8.605	109559990.	103892160.	-5.1733
Tetrachloro-m-xylene		Averaged	2.485	2.45	2.518	123295106.	119128800.	-3.3791

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/10/2018 4:46

SAMPLE NO.

10757911ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 21:16

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618078.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40151619

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	3.317	3.284	3.352	3080830.60	3151828.00	2.3045
Aroclor 1016	2	Averaged	3.512	3.478	3.546	3099002.40	3167044.00	2.1956
Aroclor 1016	3	Averaged	3.826	3.792	3.86	8861786.20	9017370.00	1.7557
Aroclor 1016	4	Averaged	3.928	3.895	3.963	3780223.45	3853260.00	1.9321
Aroclor 1016	5	Averaged	3.994	3.96	4.028	2603349.30	2572474.00	-1.1860
Aroclor 1260	1	Averaged	6.3	6.266	6.334	8862352.50	8433522.00	-4.8388
Aroclor 1260	2	Averaged	7.005	6.972	7.04	10014373.3	10338502.0	3.2366
Aroclor 1260	3	Averaged	7.251	7.217	7.285	4779803.15	4863954.00	1.7606
Aroclor 1260	4	Averaged	7.442	7.409	7.477	2915110.60	2985660.00	2.4201
Aroclor 1260	5	Averaged	7.901	7.867	7.935	2638735.95	2816390.00	6.7325
Decachlorobiphenyl (S)		Averaged	8.571	8.537	8.605	109559990.	104964120.	-4.1948
Tetrachloro-m-xylene		Averaged	2.484	2.45	2.518	123295106.	118641800.	-3.7741

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/10/2018 4:46

SAMPLE NO.

10860013CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay
Calibration Date: 03/23/2018 Time: 13:25

Instrument ID: 40GCSJ GC Column: Col 1
Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 032318.B\032318004.D
Init. Calib. Time(s): 11:02 19:39

SDG No.: 40151619

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1242	1	Averaged	3.317	3.284	3.352	2533198.70	2546654.00	0.5312
Aroclor 1242	2	Averaged	3.513	3.479	3.547	2520033.45	2528060.00	0.3185
Aroclor 1242	3	Averaged	3.826	3.793	3.861	7116457.95	7066942.00	-0.6958
Aroclor 1242	4	Averaged	3.929	3.895	3.963	3041534.65	3028536.00	-0.4274
Aroclor 1242	5	Averaged	3.994	3.961	4.029	2047746.90	2011672.00	-1.7617
Decachlorobiphenyl (S)		Averaged	8.569	8.537	8.605	109559990.	104280400.	-4.8189
Tetrachloro-m-xylene		Averaged	2.484	2.45	2.518	123295106.	118932640.	-3.5382

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

10860015CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/23/2018 Time: 16:35

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 032318.B\032318016.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40151619

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1248	1	Averaged	4.261	4.227	4.295	2342973.85	2443730.00	4.3004
Aroclor 1248	2	Averaged	4.544	4.512	4.58	4150305.95	4277822.00	3.0724
Aroclor 1248	3	Averaged	4.811	4.778	4.846	2030080.20	2160242.00	6.4117
Aroclor 1248	4	Averaged	4.878	4.845	4.913	5037445.65	5300408.00	5.2202
Aroclor 1248	5	Averaged	5.036	5.004	5.072	3588546.15	3797570.00	5.8248
Decachlorobiphenyl (S)		Averaged	8.568	8.537	8.605	109559990.	110950540.	1.2692
Tetrachloro-m-xylene		Averaged	2.485	2.45	2.518	123295106.	122703060.	-0.4802

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

10860014CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/23/2018 Time: 19:45

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 032318.B\032318028.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40151619

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1254	1	Averaged	5.161	5.128	5.196	5235247.45	5353588.00	2.2605
Aroclor 1254	2	Averaged	5.406	5.374	5.442	4301054.45	4439574.00	3.2206
Aroclor 1254	3	Averaged	5.508	5.476	5.544	7766063.85	7987178.00	2.8472
Aroclor 1254	4	Averaged	6.024	5.993	6.061	4869683.55	5231188.00	7.4236
Aroclor 1254	5	Averaged	6.297	6.265	6.333	6507103.75	6840038.00	5.1165
Decachlorobiphenyl (S)		Averaged	8.568	8.537	8.605	109559990.	111402260.	1.6815
Tetrachloro-m-xylene		Averaged	2.484	2.45	2.518	123295106.	122415920.	-0.7131

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

10850752CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/27/2018 Time: 13:55

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 032718.B\032718004.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40151619

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1221	1	Averaged	1.804	1.77	1.838	1041256.70	973054.000	-6.5500
Aroclor 1221	2	Averaged	2.407	2.373	2.441	547842.900	513248.000	-6.3147
Aroclor 1221	3	Averaged	2.688	2.654	2.722	1383336.70	1293026.00	-6.5285
Aroclor 1221	4	Averaged	2.789	2.755	2.823	1105769.55	1008344.00	-8.8107
Aroclor 1221	5	Averaged	2.851	2.817	2.885	3255397.65	3070240.00	-5.6877
Decachlorobiphenyl (S)		Averaged	8.57	8.537	8.605	109559990.	97313000.0	-11.1783
Tetrachloro-m-xylene		Averaged	2.485	2.45	2.518	123295106.	115912980.	-5.9874

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

10850753CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/27/2018 Time: 17:05

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 032718.B\032718016.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40151619

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1232	1	Averaged	2.85	2.817	2.885	2500024.00	2681994.00	7.2787
Aroclor 1232	2	Averaged	3.513	3.479	3.547	1339782.00	1400658.00	4.5437
Aroclor 1232	3	Averaged	3.826	3.793	3.861	3749726.00	4023370.00	7.2977
Aroclor 1232	4	Averaged	3.928	3.895	3.963	1606492.00	1720932.00	7.1236
Aroclor 1232	5	Averaged	3.994	3.961	4.029	1091876.00	1148408.00	5.1775
Decachlorobiphenyl (S)		Averaged	8.57	8.537	8.605	109559990.	105022320.	-4.1417
Tetrachloro-m-xylene		Averaged	2.484	2.45	2.518	123295106.	119771560.	-2.8578

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Pace Analytical® Prep Log Report

40151619

Batch Information: OEXT 283977 PCB-B

Template Version: F-GB-O-113-Rev.04 (14Mar2018)

Prep Method	EPA 3541
Spiked By	AMC
Instrument	40BALL
Hexane/Acetone 1:1	191930
3620B Date/Initials	03/23/18 AMC
Reviewed By	BLM

Analysis Method	EPA 8082A Mod
Spiked By Date/Time	03/22/2018 07:22:48:165
Conc. Temp #1	40
Hexane	188917
H2SO4 - Conc.	179360
Reviewed By Date	04/06/2018 08:42

Extracted By	AMC
Witnessed By	ETB
Conc. Temp #2	40
Sodium Sulfate	190952
Acid 3665A Date/Initials	03/23/18 AMC
Batch Notes	

Extracted Date/Time	03/22/2018 07:22:46:430
Witnessed By Date/Time	03/22/2018 07:22:48:165
Methylene Chloride	None Added
Florisil	186910
Tuna	None Added

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Volume Delivered (mL)	Sample Notes	8081-SS (mL)	AR1242-SPK (mL)
8082A TNYP	BLANK	**1662163**	10	5	3		189973 (.25)	
8082A TNYP	LCS	**1662164**	10	5	3		189973 (.25)	182336 (.125)
8082A TNYP	PS	**40151552011**	9.9626	5	3		189973 (.25)	
8082A TNYP	PS	**40151597001**	9.9992	5	3		189973 (.25)	
8082A TNYP	PS	**40151605001**	10.0092	5	3		189973 (.25)	
8082A TNYP	PS	**40151605002**	9.9923	5	3		189973 (.25)	
8082A TNYP	PS	**40151614001**	10.0203	5	3		189973 (.25)	
8082A TNYP	PS	**40151616001**	9.9967	5	3		189973 (.25)	
8082A TNYP	PS	**40151619001**	9.9791	5	3		189973 (.25)	
8082A TNYP	RQS	**40151619002**	10.0233	5	3		189973 (.25)	
8082A TNYP	MS	**1662165**	9.9608	5	3		189973 (.25)	182336 (.125)
8082A TNYP	DUP	**1662166**	9.9773	5	3		189973 (.25)	
8082A TNYP	PS	**40151619003**	10.0185	5	3		189973 (.25)	
8082A TNYP	PS	**40151619004**	9.9887	5	3		189973 (.25)	
8082A TNYP	PS	**40151800001**	10.0159	5	3		189973 (.25)	
8082A TNYP	PS	**40151800002**	9.968	5	3		189973 (.25)	

Pace Analytical® Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Volume Delivered (mL)	Sample Notes	8081-SS (mL)	AR1242-SPK (mL)
8082A TNYP	PS	**40151800003**	9.9637	5	3		189973 (.25)	
8082A TNYP	PS	**40151800004**	10.0193	5	3		189973 (.25)	
8082A TNYP	PS	**40151804001**	9.9711	5	3		189973 (.25)	
8082A TNYP	PS	**40151804002**	9.9758	5	3		189973 (.25)	
8082A TNYP	PS	**40151804003**	9.9638	5	3		189973 (.25)	
8082A TNYP	PS	**40151804009**	10.0066	5	3		189973 (.25)	
8082A TNYP	PS	**40151804010**	10.0363	5	3		189973 (.25)	

Standard Notes:

182336: Ar1242 Spike @20ug/mL 40GCS9. **189973: Pest/PCB Surrogate Spike 40GCSC.**

```
Sequence Name: C:\msdchem\1\sequence\030618.s
      Comment:
     Operator: BLM
    Data Path: C:\MSDCHEM\1\DATA\030618\
Instrument Control  Pre-Seq Cmd:
Data Analysis       Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis      Post-Seq Cmd:

  Method Sections To Run        Sequence Barcode Options
  (X) Full Method               (X) On Mismatch, Inject Anyway
  ( ) Reprocessing Only         ( ) On Mismatch, Don't Inject
                                ( ) Barcode Disabled
```

Line		Sample Name/Misc Info
1) Unlinked		
2) RearSamp	1	prime
Datafile		030618001
Method		GEBIOTA2017
3) Sample	2	prime
Datafile		030618002
Method		GEBIOTA2017
4) RearSamp	3	HEXANE
Datafile		030618003
Method		GEBIOTA2017
5) Sample	4	HEXANE
Datafile		030618004
Method		GEBIOTA2017
6) RearSamp	5	1232-CAL3S,185539:1,17499,NSA
Datafile		030618005
Method		GEBIOTA2017
7) Sample	4	HEXANE
Datafile		030618006
Method		GEBIOTA2017
8) RearSamp	6	1221-CAL1F,188138:1,17499,NSA
Datafile		030618007
Method		GEBIOTA2017
9) Sample	5	1232-CAL3S,185539:1,17498,NSA
Datafile		030618008
Method		GEBIOTA2017
10) RearSamp	7	1221-CAL2F,188139:1,17499,NSA
Datafile		030618009
Method		GEBIOTA2017
11) Sample	6	1221-CAL1F,188138:1,17498,NSA
Datafile		030618010
Method		GEBIOTA2017
12) RearSamp	8	1221-CAL3F,185538:1,17499,NSA
Datafile		030618011
Method		GEBIOTA2017
13) Sample	7	1221-CAL2F,188139:1,17498,NSA
Datafile		030618012
Method		GEBIOTA2017
14) RearSamp	9	1221-CAL4F,188140:1,17499,NSA
Datafile		030618013
Method		GEBIOTA2017
15) Sample	8	1221-CAL3F,185538:1,17498,NSA
Datafile		030618014
Method		GEBIOTA2017
16) RearSamp	10	1221-CAL5F,188141:1,17499,NSA
Datafile		030618015
Method		GEBIOTA2017
17) Sample	9	1221-CAL4F,188140:1,17498,NSA
Datafile		030618016
Method		GEBIOTA2017
18) RearSamp	11	HEXANE
Datafile		030618017
Method		GEBIOTA2017
19) Sample	10	1221-CAL5F,188141:1,17498,NSA
Datafile		030618018
Method		GEBIOTA2017
20) RearSamp	12	1242-CAL1B,188132:1,17499,NSA

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Last Modified: Tue Mar 06 10:58:59 2018
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Page: 1

BLM 3/17/18

Continued on Page 5

Read and Understood By

Signed — 3/17/18 Date — Signed — 3/7/18 Date

Datafile		030618019
Method		GEBIOTA2017
21) Sample	11	HEXANE
Datafile		030618020
Method		GEBIOTA2017
22) RearSamp	13	1242-CAL2B,185543:1,17499,NSA
Datafile		030618021
Method		GEBIOTA2017
23) Sample	12	1242-CAL1B,188132:1,17498,NSA
Datafile		030618022
Method		GEBIOTA2017
24) RearSamp	14	1242-CAL3B,185544:1,17499,NSA
Datafile		030618023
Method		GEBIOTA2017
25) Sample	13	1242-CAL2B,185543:1,17498,NSA
Datafile		030618024
Method		GEBIOTA2017
26) RearSamp	15	1242-CAL4B,185545:1,17499,NSA
Datafile		030618025
Method		GEBIOTA2017
27) Sample	14	1242-CAL3B,185544:1,17498,NSA
Datafile		030618026
Method		GEBIOTA2017
28) RearSamp	16	1242-CAL5B,185546:1,17499,NSA
Datafile		030618027
Method		GEBIOTA2017
29) Sample	15	1242-CAL4B,185545:1,17498,NSA
Datafile		030618028
Method		GEBIOTA2017
30) RearSamp	17	HEXANE
Datafile		030618029
Method		GEBIOTA2017
31) Sample	16	1242-CAL5B,185546:1,17498,NSA
Datafile		030618030
Method		GEBIOTA2017
32) RearSamp	18	1248-CAL1D,188134:1,17499,NSA
Datafile		030618031
Method		GEBIOTA2017
33) Sample	17	HEXANE
Datafile		030618032
Method		GEBIOTA2017
34) RearSamp	19	1248-CAL2D,185548:1,17499,NSA
Datafile		030618033
Method		GEBIOTA2017
35) Sample	18	1248-CAL1D,188134:1,17498,NSA
Datafile		030618034
Method		GEBIOTA2017
36) RearSamp	20	1248-CAL3D,185549:1,17499,NSA
Datafile		030618035
Method		GEBIOTA2017
37) Sample	19	1248-CAL2D,185548:1,17498,NSA
Datafile		030618036
Method		GEBIOTA2017
38) RearSamp	21	1248-CAL4D,185550:1,17499,NSA
Datafile		030618037
Method		GEBIOTA2017
39) Sample	20	1248-CAL3D,185549:1,17498,NSA
Datafile		030618038
Method		GEBIOTA2017
40) RearSamp	22	1248-CAL5D,185551:1,17499,NSA
Datafile		030618039
Method		GEBIOTA2017
41) Sample	21	1248-CAL4D,185550:1,17498,NSA
Datafile		030618040
Method		GEBIOTA2017
42) RearSamp	23	HEXANE
Datafile		030618041
Method		GEBIOTA2017
43) Sample	22	1248-CAL5D,185551:1,17498,NSA
Datafile		030618042
Method		GEBIOTA2017

Last Modified: Tue Mar 06 10:58:59 2018

Page: 2

BLM 3/7/18

Continued on Page 6

Read and Understood By

Bryan Meyer — Signed — 3/7/18 Date

Signed — 3/7/18 Date

Sequence Name: C:\msdchem\1\sequence\030618.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)		RearSamp	24	1254-CAL1C,188135:1,17499,NSA		
	Datafile			030618043		
	Method				GEBIOTA2017	
45)		Sample	23	HEXANE		
	Datafile			030618044		
	Method				GEBIOTA2017	
46)		RearSamp	25	1254-CAL2C,185553:1,17499,NSA		
	Datafile			030618045		
	Method				GEBIOTA2017	
47)		Sample	24	1254-CAL1C,188135:1,17498,NSA		
	Datafile			030618046		
	Method				GEBIOTA2017	
48)		RearSamp	26	1254-CAL3C,185554:1,17499,NSA		
	Datafile			030618047		
	Method				GEBIOTA2017	
49)		Sample	25	1254-CAL2C,185553:1,17498,NSA		
	Datafile			030618048		
	Method				GEBIOTA2017	
50)		RearSamp	27	1254-CAL4C,185555:1,17499,NSA		
	Datafile			030618049		
	Method				GEBIOTA2017	
51)		Sample	26	1254-CAL3C,185554:1,17498,NSA		
	Datafile			030618050		
	Method				GEBIOTA2017	
52)		RearSamp	28	1254-CAL5C,185556:1,17499,NSA		
	Datafile			030618051		
	Method				GEBIOTA2017	
53)		Sample	27	1254-CAL4C,185555:1,17498,NSA		
	Datafile			030618052		
	Method				GEBIOTA2017	
54)		RearSamp	29	HEXANE		
	Datafile			030618053		
	Method				GEBIOTA2017	
55)		Sample	28	1254-CAL5C,185556:1,17498,NSA		
	Datafile			030618054		
	Method				GEBIOTA2017	
56)		RearSamp	30	1660-CAL1A,188136:1,17499,AR1		
	Datafile			030618055		
	Method				GEBIOTA2017	
57)		Sample	29	HEXANE		
	Datafile			030618056		
	Method				GEBIOTA2017	
58)		RearSamp	31	1660-CAL2A,185558:1,17499,AR1		
	Datafile			030618057		
	Method				GEBIOTA2017	
59)		Sample	30	1660-CAL1A,188136:1,17498,AR1		
	Datafile			030618058		
	Method				GEBIOTA2017	
60)		RearSamp	32	1660-CAL3A,185559:1,17499,AR1		
	Datafile			030618059		
	Method				GEBIOTA2017	
61)		Sample	31	1660-CAL2A,185558:1,17498,AR1		
	Datafile			030618060		
	Method				GEBIOTA2017	
62)		RearSamp	33	1660-CAL4A,185560:1,17499,AR1		
	Datafile			030618061		
	Method				GEBIOTA2017	
63)		Sample	32	1660-CAL3A,185559:1,17498,AR1		
	Datafile			030618062		
	Method				GEBIOTA2017	
64)		RearSamp	34	1660-CAL5A,185561:1,17499,AR1		
	Datafile			030618063		
	Method				GEBIOTA2017	
65)		Sample	33	1660-CAL4A,185560:1,17498,AR1		
	Datafile			030618064		
	Method				GEBIOTA2017	
66)		RearSamp	35	HEXANE		
	Datafile			030618065		

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```
      Method                GEBIOTA2017
67)  Sample          34     1660-CAL5A,185561:1,17498,AR1
      Datafile              030618066
      Method                GEBIOTA2017
68)  RearSamp        36     1221-ICV,188142:1,17499,AR122
      Datafile              030618067
      Method                GEBIOTA2017
69)  Sample          35     HEXANE
      Datafile              030618068
      Method                GEBIOTA2017
70)  RearSamp        37     1242-ICV,185562:1,17499,AR124 ok
      Datafile              030618069
      Method                GEBIOTA2017
71)  Sample          36     1221-ICV,188142:1,17498,AR122 ok
      Datafile              030618070
      Method                GEBIOTA2017
72)  RearSamp        38     1248-ICV,185563:1,17499,AR124 ok
      Datafile              030618071
      Method                GEBIOTA2017
73)  Sample          37     1242-ICV,185562:1,17498,AR124 ok
      Datafile              030618072
      Method                GEBIOTA2017
74)  RearSamp        39     1254-ICV,185564:1,17499,AR125 ok
      Datafile              030618073
      Method                GEBIOTA2017
75)  Sample          38     1248-ICV,185563:1,17498,AR124 ok
      Datafile              030618074
      Method                GEBIOTA2017
76)  RearSamp        40     1660-ICV,185565:1,17499,AR166 ok
      Datafile              030618075
      Method                GEBIOTA2017
77)  Sample          39     1254-ICV,185564:1,17498,AR125 ok
      Datafile              030618076
      Method                GEBIOTA2017
78)  RearSamp        41     1221-CRDL,188138:1,17499,RL12 ok
      Datafile              030618077
      Method                GEBIOTA2017
79)  Sample          40     1660-ICV,185565:1,17498,AR166 ok
      Datafile              030618078
      Method                GEBIOTA2017
80)  RearSamp        42     1242-CRDL,188132:1,17499,RL12 ok
      Datafile              030618079
      Method                GEBIOTA2017
81)  Sample          41     1221-CRDL,188138:1,17498,RL12 ok
      Datafile              030618080
      Method                GEBIOTA2017
82)  RearSamp        43     1248-CRDL,188134:1,17499,RL12 ok
      Datafile              030618081
      Method                GEBIOTA2017
83)  Sample          42     1242-CRDL,188132:1,17498,RL12 ok
      Datafile              030618082
      Method                GEBIOTA2017
84)  RearSamp        44     1254-CRDL,188135:1,17499,RL12 ok
      Datafile              030618083
      Method                GEBIOTA2017
85)  Sample          43     1248-CRDL,188134:1,17498,RL12 ok
      Datafile              030618084
      Method                GEBIOTA2017
86)  RearSamp        45     1660-CRDL,188136:1,17499,RL16 ok
      Datafile              030618085
      Method                GEBIOTA2017
87)  Sample          44     1254-CRDL,188135:1,17498,RL12 ok
      Datafile              030618086
      Method                GEBIOTA2017
88)  RearSamp        46     HEXANE
      Datafile              030618087
      Method                GEBIOTA2017
89)  Sample          45     1660-CRDL,188136:1,17498,RL16 ok
      Datafile              030618088
      Method                GEBIOTA2017
```

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BLM 3/7/18

Continued on Page —

Read and Understood By

Signed [signature] Date 3/7/18 Signed [signature] Date 3/7/18

```
   Sequence Name: C:\msdchem\1\sequence\032318.s
         Comment:
        Operator: BLM
       Data Path: C:\MSDCHEM\1\DATA\032318\
Instrument Control  Pre-Seq Cmd:
Data Analysis       Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis      Post-Seq Cmd:

    Method Sections To Run      Sequence Barcode Options
    (X) Full Method             (X) On Mismatch, Inject Anyway
    ( ) Reprocessing Only       ( ) On Mismatch, Don't Inject
                                ( ) Barcode Disabled
```

Line		Sample Name/Misc Info
1) Sample	1	prime
Datafile		032318001
Method		GEBIOTA2017
2) Sample	2	HEXANE
Datafile		032318002
Method		GEBIOTA2017
3) Sample	3	HEXANE
Datafile		032318003
Method		GEBIOTA2017
4) Sample	4	1242-CCV,185544:1,17498,AR124 OK
Datafile		032318004
Method		GEBIOTA2017
5) Sample	5	1242-CCV,185544:1,17498,AR124 OK
Datafile		032318005
Method		GEBIOTA2017
6) Sample	6	1662163,,17567,BIOTA B
Datafile		032318006
Method		GEBIOTA2017
7) Sample	7	1662164,,17567,BIOTA L
Datafile		032318007
Method		GEBIOTA2017
8) Sample	8	1662165,,17567,BIOTA RS x2 MS
Datafile		032318008
Method		GEBIOTA2017
9) Sample	9	40151552011 x4,,17567,BIOTA
Datafile		032318009
Method		GEBIOTA2017
10) Sample	10	40151597001,,17567,BIOTA
Datafile		032318010
Method		GEBIOTA2017
11) Sample	11	40151605001,,17567,BIOTA
Datafile		032318011
Method		GEBIOTA2017
12) Sample	12	40151605002 x2,,17567,BIOTA
Datafile		032318012
Method		GEBIOTA2017
13) Sample	13	40151614001,,17567,BIOTA
Datafile		032318013
Method		GEBIOTA2017
14) Sample	14	40151616001,,17567,BIOTA
Datafile		032318014
Method		GEBIOTA2017
15) Sample	15	40151619001,,17567,BIOTA
Datafile		032318015
Method		GEBIOTA2017
16) Sample	16	1248-CCV,185549:1,17498,AR124 OK
Datafile		032318016
Method		GEBIOTA2017
17) Sample	17	1248-CCV,185549:1,17498,AR124 OK
Datafile		032318017
Method		GEBIOTA2017
18) Sample	18	40151619002,,17567,BIOTA
Datafile		032318018
Method		GEBIOTA2017
19) Sample	19	1662166,,17567,BIOTA DUP
Datafile		032318019

```
   Last Modified: Fri Mar 23 12:37:04 2018
```

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BLM 3/26/18

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Read and Understood By

Bryan Mayfield — Signed — 3/26/18 Date

Signed — 3/26/18 Date

	Method		GEBIOTA2017
20)	Sample	20	40151619003,,17567,BIOTA
	Datafile		032318020
	Method		GEBIOTA2017
21)	Sample	21	40151619004,,17567,BIOTA
	Datafile		032318021
	Method		GEBIOTA2017
22)	Sample	22	40151800001,,17567,BIOTA RS x 2
	Datafile		032318022
	Method		GEBIOTA2017
23)	Sample	23	40151800002,,17567,BIOTA
	Datafile		032318023
	Method		GEBIOTA2017
24)	Sample	24	40151800003 x2,,17567,BIOTA RS x 3
	Datafile		032318024
	Method		GEBIOTA2017
25)	Sample	25	40151800004,,17567,BIOTA
	Datafile		032318025
	Method		GEBIOTA2017
26)	Sample	26	40151804001 x3,,17567,BIOTA
	Datafile		032318026
	Method		GEBIOTA2017
27)	Sample	27	40151804002,,17567,BIOTA
	Datafile		032318027
	Method		GEBIOTA2017
28)	Sample	28	1254-CCV,185554:1,17498,AR125 OK
	Datafile		032318028
	Method		GEBIOTA2017
29)	Sample	29	1254-CCV,185554:1,17498,AR125 OK
	Datafile		032318029
	Method		GEBIOTA2017
30)	Sample	30	40151804003 x2,,17567,BIOTA
	Datafile		032318030
	Method		GEBIOTA2017
31)	Sample	31	40151804009 x3,,17567,BIOTA
	Datafile		032318031
	Method		GEBIOTA2017
32)	Sample	32	40151804010 x5,,17567,BIOTA
	Datafile		032318032
	Method		GEBIOTA2017
33)	Sample	33	1660-CCV,185559:1,17498,AR166 OK
	Datafile		032318033
	Method		GEBIOTA2017
34)	Sample	34	1660-CCV,185559:1,17498,AR166 OK
	Datafile		032318034
	Method		GEBIOTA2017

Screener: 40GCSI 03/23/18

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Signed — 3/26/18 Date

Signed — 3/26/18 Date

Sequence Name: C:\msdchem\1\sequence\032718.s
Comment:
Operator: BLM
Data Path: C:\MSDCHEM\1\DATA\032718\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample	Name/Misc Info
1)	Sample	1	prime
	Datafile		032718001
	Method		GEBIOTA2017
2)	Sample	2	HEXANE
	Datafile		032718002
	Method		GEBIOTA2017
3)	Sample	3	HEXANE
	Datafile		032718003
	Method		GEBIOTA2017
4)	Sample	4	1221-CCV,185538:1,17498,AR122 ok
	Datafile		032718004
	Method		GEBIOTA2017
5)	Sample	5	1221-CCV,185538:1,17498,AR122 ok
	Datafile		032718005
	Method		GEBIOTA2017
6)	Sample	6	40151549007 x4,,17523,BIOTA
	Datafile		032718006
	Method		GEBIOTA2017
7)	Sample	7	1662165 x2,,17567,BIOTA MS
	Datafile		032718007
	Method		GEBIOTA2017
8)	Sample	8	40151800001 x2,,17567,BIOTA
	Datafile		032718008
	Method		GEBIOTA2017
9)	Sample	9	40151800003 x3,,17567,BIOTA
	Datafile		032718009
	Method		GEBIOTA2017
10)	Sample	10	1662965,,17575,BIOTA
	Datafile		032718010
	Method		GEBIOTA2017
11)	Sample	11	~~1662965,~~,17575,BIOTA 1662966 (BLM 3/28/18)
	Datafile		032718011
	Method		GEBIOTA2017
12)	Sample	12	1662968 x2,,17575,BIOTA MS x30
	Datafile		032718012
	Method		GEBIOTA2017
13)	Sample	13	40151613012,,17575,BIOTA
	Datafile		032718013
	Method		GEBIOTA2017
14)	Sample	14	1662967,,17575,BIOTA
	Datafile		032718014
	Method		GEBIOTA2017
15)	Sample	15	40151613013,,17575,BIOTA
	Datafile		032718015
	Method		GEBIOTA2017
16)	Sample	16	1232-CCV,185539:1,17498,AR123 ok
	Datafile		032718016
	Method		GEBIOTA2017
17)	Sample	17	1232-CCV,185539:1,17498,AR123 ok
	Datafile		032718017
	Method		GEBIOTA2017
18)	Sample	18	40151614006 x3,,17575,BIOTA
	Datafile		032718018
	Method		GEBIOTA2017
19)	Sample	19	40151614009 x2,,17575,BIOTA
	Datafile		032718019

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Signed: [signature] Date: 4/3/18

Signed: [signature] Date: 4-3-18

Sequence Name: C:\msdchem\1\sequence\032318.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\032318\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

GE BIOTA

Line		Sample Name/Misc Info	
1) RearSamp	1	HEXANE	
Datafile		--------	
Method		SCREEN2014	
2) Sample	2	HEXANE	
Datafile		--------	
Method		SCREEN2014	
3) RearSamp	3	1662163MB	
Datafile		--------	
Method		SCREEN2014	
4) Sample	4	1662164LCS	
Datafile		--------	
Method		SCREEN2014	
5) RearSamp	5	1662165MS	—
Datafile		--------	
Method		SCREEN2014	BLM 3/23/18
6) Sample	6	40151552-011	x3 x4
Datafile		--------	
Method		SCREEN2014	
7) RearSamp	7	40151597-001	—
Datafile		--------	
Method		SCREEN2014	
8) Sample	8	40151605-001	—
Datafile		--------	
Method		SCREEN2014	
9) RearSamp	9	40151605-002	x2
Datafile		--------	
Method		SCREEN2014	
10) Sample	10	40151614-001	—
Datafile		--------	
Method		SCREEN2014	
11) RearSamp	11	40151616-001	—
Datafile		--------	
Method		SCREEN2014	
12) Sample	12	40151619-001	—
Datafile		--------	
Method		SCREEN2014	
13) RearSamp	13	40151619-002P	—
Datafile		--------	
Method		SCREEN2014	
14) Sample	14	1662166DUP	—
Datafile		--------	
Method		SCREEN2014	
15) RearSamp	15	40151619-003	—
Datafile		--------	
Method		SCREEN2014	
16) Sample	16	40151619-004	—
Datafile		--------	
Method		SCREEN2014	
17) RearSamp	17	40151800-001	—
Datafile		--------	
Method		SCREEN2014	
18) Sample	18	40151800-002	—
Datafile		--------	
Method		SCREEN2014	
19) RearSamp	19	40151800-003	x2
Datafile		--------	

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Read and Understood By

Signed — Date 3/26/18

Signed — Date 3/26/18

SAMPLE NO.

SW1-170613-01-YP-05

FORM I INORGANIC-1
INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40151619 Contract: HUDSON RIVER REMEDIAL
Lab Sample ID: 40151619001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	0.73		%	1	03/23/2018 06:20

SAMPLE NO.

SW1-170613-01-YP-04

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40151619 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40151619002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	0.70		%	1	03/23/2018 06:20

SAMPLE NO.

SW1-170613-01-YP-03

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40151619 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40151619003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	1.3		%	1	03/23/2018 06:20

SAMPLE NO.

SW1-170613-01-YP-02

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40151619 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40151619004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	0.91		%	1	03/23/2018 06:20

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Green Bay SDG No. : 40151619 Contract : HUDSON RIVER REMEDIAL ACTION

Method Blank Matrix: Tissue Instrument ID: 40BALL

Method Blank Concentration Units: %

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1662744	C
Lipid									<0.030	U

SAMPLE NO.

1662747DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Green Bay SDG No. : 40151619 Contract: HUDSON RIVER REMEDIAL

Matrix: Tissue Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Lipid	40	0.70	0.81	14

✓ ✓

Pace Analytical® Prep Log Report

Batch Information: OEXT 284080 LIPIDS **Template Version: F-GB-O-145-Rev.01 (22Mar2018) LIPID**

Analysis Method	Pace Lipid	Analyzed By	AMC	Instrument	40BALL	Batch Notes	
Reviewed By	BLM	Reviewed By Date	05/02/2018 14:43				

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Lipid % Posted	Run Date/Time	ID	Sample Weight (g)	Sample Volume (mL)	Aliquot (mL)	Dish Weight (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
LIPID	BLANK	**1662744**	Y	0.01500	03/23/2018 06:20:11		10	5	1	0.9258	0.9261	M	
LIPID	BLANK	**1662745**	Y	0.04500	03/23/2018 06:20:11		10	5	1	0.9256	0.9265	M	
LIPID	PS	**40151552011**	Y	1.255	03/23/2018 06:20:11		9.9626	5	1	0.9209	0.9459	M	
LIPID	PS	**40151597001**	Y	0.5350	03/23/2018 06:20:11		9.9992	5	1	0.9267	0.9374	M	
LIPID	PS	**40151605001**	Y	1.669	03/23/2018 06:20:11		10.0092	5	1	0.9233	0.9567	M	
LIPID	PS	**40151605002**	Y	0.8256	03/23/2018 06:20:11		9.9923	5	1	0.9281	0.9446	M	
LIPID	PS	**40151614001**	Y	0.6138	03/23/2018 06:20:11		10.0203	5	1	0.9272	0.9395	M	
LIPID	PS	**40151616001**	Y	0.4351	03/23/2018 06:20:11		9.9967	5	1	0.9266	0.9353	M	
LIPID	PS	**40151619001**	Y	0.7315	03/23/2018 06:20:11		9.9791	5	1	0.9237	0.9383	M	
LIPID	RQS	**40151619002**	Y	0.6984	03/23/2018 06:20:11		10.0233	5	1	0.9254	0.9394	M	
LIPID	DUP	**1662747**	Y	0.8068	03/23/2018 06:20:11		9.9773	5	1	0.9286	0.9447	M	
LIPID	PS	**40151619003**	Y	1.308	03/23/2018 06:20:11		10.0185	5	1	0.9251	0.9513	M	
LIPID	PS	**40151619004**	Y	0.9110	03/23/2018 06:20:11		9.9887	5	1	0.9302	0.9484	M	
LIPID	PS	**40151800001**	Y	0.4543	03/23/2018 06:20:11		10.0159	5	1	0.9307	0.9398	M	
LIPID	PS	**40151800002**	Y	0.6069	03/23/2018 06:20:11		9.968	5	1	0.9303	0.9424	M	
LIPID	PS	**40151800003**	Y	1.099	03/23/2018 06:20:11		9.9637	5	1	0.9323	0.9542	M	
LIPID	PS	**40151800004**	Y	0.8284	03/23/2018 06:20:11		10.0193	5	1	0.9266	0.9432	M	
LIPID	PS	**40151804001**	Y	1.434	03/23/2018 06:20:11		9.9711	5	1	0.9289	0.9575	M	
LIPID	PS	**40151804002**	Y	0.3909	03/23/2018 06:20:11		9.9758	5	1	0.9282	0.936	M	

Pace Analytical

Client Name: GE
Project #: 40151619
Sample Type: Fish
Date/Time Removed to Thaw: 03-13-18
Date/Time Prepped: 03-13-18
Prepped by: CWN + JL + RM
Location Thawed: 40FRG21 / (Room Temperature) (circle one)

40151619

Biota Homogenization Log (NYDOH Method)

Logbook: 4413

Sample ID	A) Scales Removed B) Skin Removed (Note A or B Below)	Whole Body/Fillet (WB/F)	Picture of Fish/Weight Taken? (Y/N)	Total Fish Weight (g)	Internal Organs Intact (Y/N)	Gender (Optional) M/F/U[1]	Fillet Weight (g)	Left/Both Fillet[2]?	Picture of Fillet/Weight Taken? (Y/N)	Container Code[3]	Number of Containers Used	Picture of Jars/Weight Taken? (Y/N)	Weight of homogenized Sample (g)	Processing Type (C/G/R/RM)[4]	Sample Comments
1	A	F	Y	250.4	Y	M	60.1	Left / Both	Y	9AG	1	Y	58.1	C	
2	A	F	Y	331.3	Y	M	69.5	Left / Both	Y	9AG	1	Y	67.3	C	
3	A	F	Y	212.0	Y	M	51.1	Left / Both	Y	9AG	1	Y	49.5	C	
4	A	F	Y	146.3	Y	M	61.3	Left / Both	Y	9AG	1	Y	60.3	C	
								Left / Both							
								Left / Both							
								Left / Both							
								Left / Both							
								Left / Both							
								Left / Both							
								Left / Both							
								Left / Both							
								Left / Both							
						CWN	03-13-18	Left / Both							
								Left / Both							
								Left / Both							
								Left / Both							
								Left / Both							
								Left / Both							
								Left / Both							
								Left / Both							
								Left / Both							

418 01418

(1) M = Male, F = Female, U = Undetermined

(2) If left fillet weight is under 40g, the right fillet in included in the sample weight.

(3) Note Container Type / Lot # using Codes Below:

Container Code	Container Size	Lot#
2CG	2 oz Clear Glass	
4AG	4 oz Amber Glass	
9AG	9 oz Amber Glass	F-7-212-04AB
32AG	32 oz Amber Glass	

(4) Processing Type Code Descriptions:

Code	Description of Code
C	Chopped
G	Grind
R	Robot coupe
RM	Robot coupe multiple batches

Reviewed By

3/16/18
Date

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION
Pace Project No.: 40151619

0950

Sample: SW1-170613-01-YP-05 **Lab ID: 40151619001** Collected: 06/13/17 16:21 Received: 06/14/17 ~~15:21~~ Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<11.4**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 16:20	12674-11-2	
PCB-1221 (Aroclor 1221)	**<11.4**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 16:20	11104-28-2	
PCB-1232 (Aroclor 1232)	**<11.4**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 16:20	11141-16-5	
PCB-1242 (Aroclor 1242)	**<11.4**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 16:20	53469-21-9	
PCB-1248 (Aroclor 1248)	**166**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 16:20	12672-29-6	
PCB-1254 (Aroclor 1254)	**96.8**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 16:20	11097-69-1	
PCB-1260 (Aroclor 1260)	**23.3J**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 16:20	11096-82-5	
PCB, Total	**286**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 16:20	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	89	%	60-140		1	03/22/18 07:22	03/23/18 16:20	877-09-8	
Decachlorobiphenyl (S)	87	%	60-140		1	03/22/18 07:22	03/23/18 16:20	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Male**				1		03/13/18 13:06		
Lipid	Analytical Method: Pace Lipid								
Lipid	**0.73**	%	0.030	0.030	1		03/23/18 06:20		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION
Pace Project No.: 40151619

0950

Sample: SW1-170613-01-YP-04 **Lab ID: 40151619002** Collected: 06/13/17 16:20 Received: 06/14/17 ~~15:21~~ Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<11.4**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:07	12674-11-2	
PCB-1221 (Aroclor 1221)	**<11.4**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:07	11104-28-2	
PCB-1232 (Aroclor 1232)	**<11.4**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:07	11141-16-5	
PCB-1242 (Aroclor 1242)	**<11.4**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:07	53469-21-9	
PCB-1248 (Aroclor 1248)	**284**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:07	12672-29-6	
PCB-1254 (Aroclor 1254)	**183**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:07	11097-69-1	
PCB-1260 (Aroclor 1260)	**41.4J**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:07	11096-82-5	
PCB, Total	**508**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:07	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	89	%	60-140		1	03/22/18 07:22	03/23/18 17:07	877-09-8	
Decachlorobiphenyl (S)	92	%	60-140		1	03/22/18 07:22	03/23/18 17:07	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Male**				1		03/13/18 13:06		
Lipid	Analytical Method: Pace Lipid								
Lipid	**0.70**	%	0.030	0.030	1		03/23/18 06:20		

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION
Pace Project No.: 40151619

0950

Sample: SW1-170613-01-YP-03 **Lab ID: 40151619003** Collected: 06/13/17 16:18 Received: 06/14/17 ~~15:21~~ Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<11.4**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:39	12674-11-2	
PCB-1221 (Aroclor 1221)	**<11.4**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:39	11104-28-2	
PCB-1232 (Aroclor 1232)	**<11.4**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:39	11141-16-5	
PCB-1242 (Aroclor 1242)	**<11.4**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:39	53469-21-9	
PCB-1248 (Aroclor 1248)	**325**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:39	12672-29-6	
PCB-1254 (Aroclor 1254)	**215**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:39	11097-69-1	
PCB-1260 (Aroclor 1260)	**56.2**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:39	11096-82-5	
PCB, Total	**596**	ug/kg	49.9	11.4	1	03/22/18 07:22	03/23/18 17:39	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	86	%	60-140		1	03/22/18 07:22	03/23/18 17:39	877-09-8	
Decachlorobiphenyl (S)	88	%	60-140		1	03/22/18 07:22	03/23/18 17:39	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Male**				1		03/13/18 13:06		
Lipid	Analytical Method: Pace Lipid								
Lipid	**1.3**	%	0.030	0.030	1		03/23/18 06:20		

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION
Pace Project No.: 40151619

0950

Sample: SW1-170613-01-YP-02 **Lab ID: 40151619004** Collected: 06/13/17 16:16 Received: 06/14/17 15:21 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<11.4**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 17:55	12674-11-2	
PCB-1221 (Aroclor 1221)	**<11.4**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 17:55	11104-28-2	
PCB-1232 (Aroclor 1232)	**<11.4**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 17:55	11141-16-5	
PCB-1242 (Aroclor 1242)	**<11.4**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 17:55	53469-21-9	
PCB-1248 (Aroclor 1248)	**194**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 17:55	12672-29-6	
PCB-1254 (Aroclor 1254)	**103**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 17:55	11097-69-1	
PCB-1260 (Aroclor 1260)	**34.2J**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 17:55	11096-82-5	
PCB, Total	**332**	ug/kg	50.1	11.4	1	03/22/18 07:22	03/23/18 17:55	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	95	%	60-140		1	03/22/18 07:22	03/23/18 17:55	877-09-8	
Decachlorobiphenyl (S)	97	%	60-140		1	03/22/18 07:22	03/23/18 17:55	2051-24-3	
Fish Gender Typing	Analytical Method: Pace Gender Typing								
Gender	**Male**				1		03/13/18 13:06		
Lipid	Analytical Method: Pace Lipid								
Lipid	**0.91**	%	0.030	0.030	1		03/23/18 06:20		

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D. SDG 40157940

ENVIRONMENTAL STANDARDS

ORGANIC ANALYSIS SUPPORT DOCUMENTATION

ESI project name:	GEHR RAMP	Reviewed by:	JA 5/31/18
Sample Collection Dates:	8/28/17	Approved by:	
Job Number:	20115678.H000	Completion Date:	6/18
Project Manager:	Meg Michell		
Laboratory:	Pace GB	Applicable Sample No's (X)	Refer to Table 1 in the Quality Assurance Review

			Sample No.	Lab Control No.
Deliverable:	CLP (Full)	( )	Refer to Table 1	
	Level IV (Full)	( )		
	Limited	( )		
	Other:	Full Per Phase 2 RAMP QAPP		

The following table indicates criteria that were examined, the identified problems, and support documentation attachments

	Criteria Examined in Detail Check (√) if Yes or Footnote Letter for Comments Below					Problems Identified Check (√) if Yes or Footnote Letter for Comments Below					Support Documentation Attachments Check (√) if Yes or Footnote Letter for Comments Below				
	8082A					8082A					8082A				
Holding Times	X										X				
Blank Analysis: Target Cmpds	X										X				
Sys Montr Cmps/Surrogates	X					X*					X				
Matrix Spike/Matrix Spike Duplicate	X										X				
Blank Spike	X										X				
Duplicate Analysis ( ) Field (X) Lab	X										X				
Detection Limit/Sensitivity															
Qualitative Identification: Target Cmpds	X										X				
Qualitative Identification: TICs															
DFTPP & BFB Mass Tuning															
GC Instrument Performance															
Initial Calibrations	X										X				
Continuing Calibrations	X										X				
Quantitation of Results	X					X					X				
DDT/Endrin Breakdown															
Surrogate Retention Time Shifts	X										X				
Internal Standards Performance															
Resolution Check Standards															
Analytical Sequence	X										X				
Florisil Cartridge & GPC Calibration															
GC Column Agreement															
Condition Upon Receipt	X										X				
Percent Solids															
Others:															

Comments: Results < RL should be considered estimated. Total PCB results calculated with estimated Aroclor results should be considered estimated.

* multiple samples had surrogates diluted out (>5 fold dilution)

PCB - FORM II SVOA-1
TISSUE SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Green Bay SDG No.: 40157940 Contract: HUDSON RIVER REMEDIAL

Instrument ID: 40GCSJ

LAB SAMPLE ID	SAMPLE NAME	DCBP	TCMX
1677643	1677643BLANK	96	76
1677644	1677644LCS	99	82
40157940001	TD5-170828-01-PKSD-02	106	99
40157940002	TD3-170828-01-PKSD-05	0*	0*
40157940003	TD3-170828-01-PKSD-04	0*	0*
40157940004	TD3-170828-01-PKSD-03	0*	0*
40157940005	TD3-170828-01-PKSD-02	0*	0*
40157940006	TD2-170828-01-PKSD-02	100	90
40157940007	TD2-170828-01-PKSD-01	101	97
40157940008	TD1-170828-01-PKSD-05	0*	0*
40157940009	TD1-170828-01-PKSD-04	0*	0*
40157940010	TD1-170828-01-PKSD-03	118	99
40157940011	TD1-170828-01-PKSD-02	110	93
40157940012	ND2-170828-01-PKSD-04	0*	0*
40157940013	ND2-170828-01-PKSD-03	0*	0*
40157940014	ND2-170828-01-PKSD-02	0*	0*
40157940016	ND1-170828-01-PKSD-06	0*	0*
40157940017	ND1-170828-01-PKSD-05	0*	0*
40157940018	ND1-170828-01-PKSD-03	111	98
40157940019	ND1-170828-01-PKSD-02	0*	0*
40157940020	ND1-170828-01-PKSD-01	102	91

D I
128 / 93
121 / 87
147 / 117
149 / 120
152 / 121
156 / 124
118 / 96
153 / 128
144 / 115
112 / 92
126 / 101
110 / 87

	QC LIMITS
(DCBP) = Decachlorobiphenyl (S)	(60-140)
(TCMX) = Tetrachloro-m-xylene (S)	(60-140)

* Values outside of QC Limits

DFs > 10.
No Qual.

PCB - FORM II SVOA-1
TISSUE SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Green Bay SDG No.: 40157940 Contract: HUDSON RIVER REMEDIAL

Instrument ID: 40GCSK

LAB SAMPLE ID	SAMPLE NAME	DCBP	TCMX
1681428	1681428BLANK	80	70
1681429	1681429LCS	86	77
1681430	1681430MS	0*	0*
1681911	1681911DUP	0*	0*
40157940015	ND2-170828-01-GOSH-02	0*	0*

T D
92 1100
102 1110

DF 10

No Qual

	QC LIMITS
(DCBP) = Decachlorobiphenyl (S)	(60-140)
(TCMX) = Tetrachloro-m-xylene (S)	(60-140)

* Values outside of QC Limits

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QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

SAMPLE DUPLICATE: 1677646

Parameter	Units	40158013010 Result	Dup Result	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<207	<128		40	
PCB-1221 (Aroclor 1221)	ug/kg	388J	313J		40	
PCB-1232 (Aroclor 1232)	ug/kg	<207	<128		40	
PCB-1242 (Aroclor 1242)	ug/kg	<207	<128		40	
PCB-1248 (Aroclor 1248)	ug/kg	2900	2290	23	40	
PCB-1254 (Aroclor 1254)	ug/kg	1260	1000	23	40	
PCB-1260 (Aroclor 1260)	ug/kg	225J	179J		40	
Decachlorobiphenyl (S)	%	117	106	56		
Tetrachloro-m-xylene (S)	%	97	89	54		

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QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

QC Batch: 286769 Analysis Method: EPA 8082A Mod
QC Batch Method: EPA 3541 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 40157940001, 40157940002, 40157940003, 40157940004, 40157940005, 40157940006, 40157940007, 40157940008, 40157940009, 40157940010, 40157940011, 40157940012, 40157940013, 40157940014, 40157940016, 40157940017, 40157940018, 40157940019, 40157940020

METHOD BLANK: 1677643 Matrix: Tissue
Associated Lab Samples: 40157940001, 40157940002, 40157940003, 40157940004, 40157940005, 40157940006, 40157940007, 40157940008, 40157940009, 40157940010, 40157940011, 40157940012, 40157940013, 40157940014, 40157940016, 40157940017, 40157940018, 40157940019, 40157940020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<11.4	50.0	11.4	04/25/18 14:57	
PCB-1221 (Aroclor 1221)	ug/kg	<11.4	50.0	11.4	04/25/18 14:57	
PCB-1232 (Aroclor 1232)	ug/kg	<11.4	50.0	11.4	04/25/18 14:57	
PCB-1242 (Aroclor 1242)	ug/kg	<11.4	50.0	11.4	04/25/18 14:57	
PCB-1248 (Aroclor 1248)	ug/kg	<11.4	50.0	11.4	04/25/18 14:57	
PCB-1254 (Aroclor 1254)	ug/kg	<11.4	50.0	11.4	04/25/18 14:57	
PCB-1260 (Aroclor 1260)	ug/kg	<11.4	50.0	11.4	04/25/18 14:57	
Decachlorobiphenyl (S)	%	96	60-140		04/25/18 14:57	
Tetrachloro-m-xylene (S)	%	76	60-140		04/25/18 14:57	

LABORATORY CONTROL SAMPLE: 1677644

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<11.4			
PCB-1221 (Aroclor 1221)	ug/kg		<11.4			
PCB-1232 (Aroclor 1232)	ug/kg		<11.4			
PCB-1242 (Aroclor 1242)	ug/kg	250	241	96	70-130	
PCB-1248 (Aroclor 1248)	ug/kg		<11.4			
PCB-1254 (Aroclor 1254)	ug/kg		<11.4			
PCB-1260 (Aroclor 1260)	ug/kg		<11.4			
Decachlorobiphenyl (S)	%			99	60-140	
Tetrachloro-m-xylene (S)	%			82	60-140	

MATRIX SPIKE SAMPLE: 1677645

Parameter	Units	40158013010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<207		<140			
PCB-1221 (Aroclor 1221)	ug/kg	388J		529J			
PCB-1232 (Aroclor 1232)	ug/kg	<207		<140			
PCB-1242 (Aroclor 1242)	ug/kg	<207	306	1360	445	70-130	M6
PCB-1248 (Aroclor 1248)	ug/kg	2900		3010			
PCB-1254 (Aroclor 1254)	ug/kg	1260		1250			
PCB-1260 (Aroclor 1260)	ug/kg	225J		220J			
Decachlorobiphenyl (S)	%				119	60-140	
Tetrachloro-m-xylene (S)	%				100	60-140	

See Form 3 For re-calc Non SDG

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QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

QC Batch: 287324
QC Batch Method: EPA 3541
Analysis Method: EPA 8082A Mod
Analysis Description: 8082 GCS PCB
Associated Lab Samples: 40157940015

METHOD BLANK: 1681428
Matrix: Tissue
Associated Lab Samples: 40157940015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<11.4	50.0	11.4	05/07/18 14:38	
PCB-1221 (Aroclor 1221)	ug/kg	<11.4	50.0	11.4	05/07/18 14:38	
PCB-1232 (Aroclor 1232)	ug/kg	<11.4	50.0	11.4	05/07/18 14:38	
PCB-1242 (Aroclor 1242)	ug/kg	<11.4	50.0	11.4	05/07/18 14:38	
PCB-1248 (Aroclor 1248)	ug/kg	<11.4	50.0	11.4	05/07/18 14:38	
PCB-1254 (Aroclor 1254)	ug/kg	<11.4	50.0	11.4	05/07/18 14:38	
PCB-1260 (Aroclor 1260)	ug/kg	<11.4	50.0	11.4	05/07/18 14:38	
Decachlorobiphenyl (S)	%	80	60-140		05/07/18 14:38	
Tetrachloro-m-xylene (S)	%	70	60-140		05/07/18 14:38	

LABORATORY CONTROL SAMPLE: 1681429

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg		<11.4			
PCB-1221 (Aroclor 1221)	ug/kg		<11.4			
PCB-1232 (Aroclor 1232)	ug/kg		<11.4			
PCB-1242 (Aroclor 1242)	ug/kg	250	236	94	70-130	
PCB-1248 (Aroclor 1248)	ug/kg		<11.4			
PCB-1254 (Aroclor 1254)	ug/kg		<11.4			
PCB-1260 (Aroclor 1260)	ug/kg		<11.4			
Decachlorobiphenyl (S)	%			86	60-140	
Tetrachloro-m-xylene (S)	%			77	60-140	

MATRIX SPIKE SAMPLE: 1681430

Parameter	Units	40157940015 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<228		<228			
PCB-1221 (Aroclor 1221)	ug/kg	996J		1220			
PCB-1232 (Aroclor 1232)	ug/kg	<228		<228			
PCB-1242 (Aroclor 1242)	ug/kg	<228	250	1220	487	70-130	M6
PCB-1248 (Aroclor 1248)	ug/kg	2930		2890			
PCB-1254 (Aroclor 1254)	ug/kg	1260		1200			
PCB-1260 (Aroclor 1260)	ug/kg	288J		268J			
Decachlorobiphenyl (S)	%				0	60-140	S4
Tetrachloro-m-xylene (S)	%				0	60-140	S4

See Form 3 For re-calc

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QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

SAMPLE DUPLICATE: 1681432

Parameter	Units	40157948011 Result	Dup Result	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<114	<114		40	
PCB-1221 (Aroclor 1221)	ug/kg	614	631	3	40	
PCB-1232 (Aroclor 1232)	ug/kg	<114	<114		40	
PCB-1242 (Aroclor 1242)	ug/kg	<114	<114		40	
PCB-1248 (Aroclor 1248)	ug/kg	1830	1870	2	40	
PCB-1254 (Aroclor 1254)	ug/kg	785	805	3	40	
PCB-1260 (Aroclor 1260)	ug/kg	187J	196J		40	
Decachlorobiphenyl (S)	%	103	102	1		
Tetrachloro-m-xylene (S)	%	97	96	1		

SAMPLE DUPLICATE: 1681433

Parameter	Units	40158017020 Result	Dup Result	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<11.4	<11.4		40	
PCB-1221 (Aroclor 1221)	ug/kg	<11.4	<11.4		40	
PCB-1232 (Aroclor 1232)	ug/kg	<11.4	<11.4		40	
PCB-1242 (Aroclor 1242)	ug/kg	<11.4	<11.4		40	
PCB-1248 (Aroclor 1248)	ug/kg	23.5J	21.8J		40	
PCB-1254 (Aroclor 1254)	ug/kg	22.2J	20.0J		40	
PCB-1260 (Aroclor 1260)	ug/kg	25.7J	24.0J		40	
Decachlorobiphenyl (S)	%	93	85	9		
Tetrachloro-m-xylene (S)	%	103	95	8		

SAMPLE DUPLICATE: 1681434

Parameter	Units	40158029004 Result	Dup Result	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<56.8	<56.9		40	
PCB-1221 (Aroclor 1221)	ug/kg	277	291	5	40	
PCB-1232 (Aroclor 1232)	ug/kg	<56.8	<56.9		40	
PCB-1242 (Aroclor 1242)	ug/kg	<56.8	<56.9		40	
PCB-1248 (Aroclor 1248)	ug/kg	890	922	4	40	
PCB-1254 (Aroclor 1254)	ug/kg	334	347	4	40	
PCB-1260 (Aroclor 1260)	ug/kg	97.0J	102J		40	
Decachlorobiphenyl (S)	%	99	102	4		
Tetrachloro-m-xylene (S)	%	94	99	5		

SAMPLE DUPLICATE: 1681911

Parameter	Units	40157940015 Result	Dup Result	RPD	Max RPD	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<228	<228		40	
PCB-1221 (Aroclor 1221)	ug/kg	996J	1040		40	
PCB-1232 (Aroclor 1232)	ug/kg	<228	<228		40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

SAMPLE DUPLICATE: 1681911

Parameter	Units	40157940015 Result	Dup Result	RPD	Max RPD	Qualifiers
PCB-1242 (Aroclor 1242)	ug/kg	<228	<228		40	
PCB-1248 (Aroclor 1248)	ug/kg	2930	2680	9	40	
PCB-1254 (Aroclor 1254)	ug/kg	1260	1150	9	40	
PCB-1260 (Aroclor 1260)	ug/kg	288J	280J		40	
Decachlorobiphenyl (S)	%	0	0			S4
Tetrachloro-m-xylene (S)	%	0	0			S4

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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

QC Batch: 286925 Analysis Method: Pace Lipid
QC Batch Method: Pace Lipid Analysis Description: LIPID
Associated Lab Samples: 40157940001, 40157940002, 40157940003, 40157940004, 40157940005, 40157940006, 40157940007, 40157940008, 40157940009, 40157940010, 40157940011, 40157940012, 40157940013, 40157940014, 40157940016, 40157940017, 40157940018, 40157940019, 40157940020

METHOD BLANK: 1678322 Matrix: Tissue
Associated Lab Samples: 40157940001, 40157940002, 40157940003, 40157940004, 40157940005, 40157940006, 40157940007, 40157940008, 40157940009, 40157940010, 40157940011, 40157940012, 40157940013, 40157940014, 40157940016, 40157940017, 40157940018, 40157940019, 40157940020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lipid	%	<0.030	0.030	0.030	04/25/18 08:49	

MATRIX SPIKE SAMPLE: 1683167

Parameter	Units	40158013010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lipid	%	4.0		2.7			

SAMPLE DUPLICATE: 1678325

Parameter	Units	40158013010 Result	Dup Result	RPD	Max RPD	Qualifiers
Lipid	%	4.0	2.3	53	40	R1

Non SDG Parent No Qual

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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

QC Batch: 287437
QC Batch Method: Pace Lipid
Analysis Method: Pace Lipid
Analysis Description: LIPID
Associated Lab Samples: 40157940015

METHOD BLANK: 1681739 Matrix: Tissue
Associated Lab Samples: 40157940015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Lipid	%	<0.030	0.030	0.030	04/30/18 14:40	

MATRIX SPIKE SAMPLE: 1688378

Parameter	Units	40157940015 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Lipid	%	3.7		3.8			

SAMPLE DUPLICATE: 1681741

Parameter	Units	40157940015 Result	Dup Result	RPD	Max RPD	Qualifiers
Lipid	%	3.7	3.7	1	40	

SAMPLE DUPLICATE: 1681743

Parameter	Units	40157948011 Result	Dup Result	RPD	Max RPD	Qualifiers
Lipid	%	2.7	2.8	6	40	

SAMPLE DUPLICATE: 1681744

Parameter	Units	40158017020 Result	Dup Result	RPD	Max RPD	Qualifiers
Lipid	%	2.9	2.6	9	40	

SAMPLE DUPLICATE: 1681745

Parameter	Units	40158029004 Result	Dup Result	RPD	Max RPD	Qualifiers
Lipid	%	3.5	3.7	4	40	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

1q	Sample was re-analyzed due to incorrect dilution.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
R1	RPD value was outside control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.

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SAMPLE NO.

LCS

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay
Contract: HUDSON RIVER REMEDIAL ACTION M
Date Received:
Matrix: Tissue SDG No.: 40157940
Date Extracted: 04/24/2018 07:41
Lab Sample ID: 1677644
Date Analyzed: 04/25/2018 15:13
Lab File ID: 042518.B\042518008.D
Initial wt/vol: 10 g Final wt/vol: 5 mL Dilution: 1
Instrument: 40GCSJ Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	<11.4	U
11104-28-2	PCB-1221 (Aroclor 1221)	<11.4	U
11141-16-5	PCB-1232 (Aroclor 1232)	<11.4	U
53469-21-9	PCB-1242 (Aroclor 1242)	241	
12672-29-6	PCB-1248 (Aroclor 1248)	<11.4	U
11097-69-1	PCB-1254 (Aroclor 1254)	<11.4	U
11096-82-5	PCB-1260 (Aroclor 1260)	<11.4	U

SAMPLE NO.

LCS

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay
Contract: HUDSON RIVER REMEDIAL ACTION M
Date Received:
Matrix: Tissue SDG No.: 40157940
Date Extracted: 04/30/2018 10:28
Lab Sample ID: 1681429
Date Analyzed: 05/07/2018 14:54
Lab File ID: 050718.B\050718007.D
Initial wt/vol: 10 g Final wt/vol: 5 mL Dilution: 1
Instrument: 40GCSK Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	<11.4	U
11104-28-2	PCB-1221 (Aroclor 1221)	<11.4	U
11141-16-5	PCB-1232 (Aroclor 1232)	<11.4	U
53469-21-9	PCB-1242 (Aroclor 1242)	236 ✓	
12672-29-6	PCB-1248 (Aroclor 1248)	<11.4	U
11097-69-1	PCB-1254 (Aroclor 1254)	<11.4	U
11096-82-5	PCB-1260 (Aroclor 1260)	<11.4	U

PCB - FORM III SVOA-1

TISSUE LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Green Bay
Date Extracted: 04/24/2018
Instrument: 40GCSJ
Lab File ID: 042518.B\042518008.D

Lab Sample ID: 1677644LCS
Date Analyzed (1): 04/25/2018
LCS Lot No: 192096
SDG No.: 40157940

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
PCB-1242 (Aroclor 1242)	250	241	96	70-130

Spike Recovery: 0 out of 1 outside limits.

05/14/2018 3:03

PCB - FORM III SVOA-1

TISSUE LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Green Bay
Lab Sample ID: 1681429LCS
Date Extracted: 04/30/2018
Date Analyzed (1): 05/07/2018
Instrument: 40GCSK
LCS Lot No: 192096
Lab File ID: 050718.B\050718007.D
SDG No.: 40157940

COMPOUND	AMOUNT ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	LCS %REC	QC LIMITS REC.
PCB-1242 (Aroclor 1242)	250	236	94	70-130

Spike Recovery: 0 out of 1 outside limits.

05/14/2018 3:03

SAMPLE NO.

MS

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay Contract: HUDSON RIVER REMEDIAL ACTION M

Date Received: 10/04/2017 14:05 Matrix: Tissue SDG No.: 40157940

Date Extracted: 04/30/2018 10:28 Lab Sample ID: 1681430

Date Analyzed: 05/07/2018 15:26 Lab File ID: 050718.B\050718009.D

Initial wt/vol: 9.9846 g Final wt/vol: 5 mL Dilution: 20 Instrument: 40GCSK Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	<228	U
11104-28-2	PCB-1221 (Aroclor 1221)	1220	
11141-16-5	PCB-1232 (Aroclor 1232)	<228	U
53469-21-9	PCB-1242 (Aroclor 1242)	1220 ✓	
12672-29-6	PCB-1248 (Aroclor 1248)	2890	
11097-69-1	PCB-1254 (Aroclor 1254)	1200	
11096-82-5	PCB-1260 (Aroclor 1260)	268	J

PCB - FORM III SVOA-1

TISSUE SEMI-VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Green Bay
Matrix Spike - Sample No: 1681430MS

Date Extracted: 04/30/2018
Date Analyzed (1): 05/07/2018

Instrument: 40GCSK
Lab File ID: 050718.B\050718009.D

Parent Sample ID: ND2-170828-01-GOSH-02
SDG No.: 40157940

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONCENTRATION (ug/kg)	MS %REC	QC LIMITS REC.
PCB-1242 (Aroclor 1242)	250	<228	1220	487	70-130

1066

~~64%~~ 62%

Background > 4x Spike

∴ No goal

See attached spreadsheet for re-calc.

Spike Recovery: 1 out of 1 outside limits.

Sample ND2-170828-01-GOSH-02

Wt = 9.994 **DF =** 20

		Area	*Avg CF*	On Column	Peak Result	Aroclor Result
A1242	PCB-6	106724	*2533198.700*	0.04	422	**1066** ug/kg
	PCB-7	311128	*2520033.450*	0.12	1235	
	PCB-8	759893	*7116457.950*	0.11	1068	
	PCB-9	348557	*3041534.650*	0.11	1147	
	PCB-10	298414	*2047746.900*	0.15	1458	
				(Area / Avg CF)	(On Column * DF * 5000/Wt)	(Avg of 5 Peak Results)

Recalc MS %Rec

Spike Added	250 ug/kg
Sample Conc.	1066 ug/kg
MS Conc.	1220 ug/kg
MS %Rec	**62%**

SAMPLE NO.

DUP

PCB - FORM I SVOA-1

SEMI-VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay Contract: HUDSON RIVER REMEDIAL ACTION M

Date Received: 10/04/2017 14:05 Matrix: Tissue SDG No.: 40157940

Date Extracted: 04/30/2018 10:28 Lab Sample ID: 1681911

Date Analyzed: 05/07/2018 15:42 Lab File ID: 050718.B\050718010.D

Initial wt/vol: 9.9851 g Final wt/vol: 5 mL Dilution: 20 Instrument: 40GCSK Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/kg	Q
12674-11-2	PCB-1016 (Aroclor 1016)	<228	U
11104-28-2	PCB-1221 (Aroclor 1221)	1040 ✓	
11141-16-5	PCB-1232 (Aroclor 1232)	<228	U
53469-21-9	PCB-1242 (Aroclor 1242)	<228	U
12672-29-6	PCB-1248 (Aroclor 1248)	2680 ✓	
11097-69-1	PCB-1254 (Aroclor 1254)	1150 ✓	
11096-82-5	PCB-1260 (Aroclor 1260)	280 ✓	J

PCB - FORM III SVOA-4

TISSUE SEMI-VOLATILE SAMPLE/DUPLICATE RECOVERY

Lab Name: Pace Analytical - Green Bay
Date Extracted: 04/30/2018
Instrument 40GCSK
Lab Sample ID: ND2-170828-01-GOSH-02

Duplicate Sample No: 40157940015DUP
Date Analyzed: 05/07/2018
Lab File ID: 050718.B\050718010.D
SDG No.: 40157940

COMPOUND	SAMPLE CONCENTRATION (ug/kg)	DUPLICATE CONCENTRATION (ug/kg)	RPD	RPD LIMITS
PCB-1016 (Aroclor 1016)	<228	<228		0-40
PCB-1221 (Aroclor 1221)	996J	1040		0-40
PCB-1232 (Aroclor 1232)	<228	<228		0-40
PCB-1242 (Aroclor 1242)	<228	<228		0-40
PCB-1248 (Aroclor 1248)	2930	2680	9	0-40
PCB-1254 (Aroclor 1254)	1260	1150	9 ✓	0-40
PCB-1260 (Aroclor 1260)	288J	280J		0-40

LOQ
1000
1000

✓ ✓ ✓

Δ < 2x LOQ
∴ No Jqil

RPD: 0 out of 2 outside limits.

05/14/2018 3:03

ICAL & ICV validated in 40157940 included in this support doc.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40157940

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 12:07 19:39

LAB FILE ID

CAL1A = 030618.B\030618058.D CAL1B = 030618.B\030618022.D CAL1C = 030618.B\030618046.D

CAL1D = 030618.B\030618034.D CAL1F = 030618.B\030618010.D CAL2A = 030618.B\030618060.D

CAL2B = 030618.B\030618024.D CAL2C = 030618.B\030618048.D CAL2D = 030618.B\030618036.D

CAL2F = 030618.B\030618012.D CAL3A = 030618.B\030618062.D CAL3B = 030618.B\030618026.D

CAL3C = 030618.B\030618050.D CAL3D = 030618.B\030618038.D CAL3F = 030618.B\030618014.D

CAL4A = 030618.B\030618064.D CAL4B = 030618.B\030618028.D CAL4C = 030618.B\030618052.D

CAL4D = 030618.B\030618040.D CAL4F = 030618.B\030618016.D CAL5A = 030618.B\030618066.D

CAL5B = 030618.B\030618030.D CAL5C = 030618.B\030618054.D CAL5D = 030618.B\030618042.D

CAL5F = 030618.B\030618018.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5
Aroclor 1016	1	Averaged	3346700.00	3270300.00	3026998.00	2916970.00	2843185.00
Aroclor 1016	2	Averaged	3361310.00	3225075.00	3064774.00	2953430.00	2890423.00
Aroclor 1016	3	Averaged	9619090.00	9294970.00	8629258.00	8432580.00	8333033.00
Aroclor 1016	4	Averaged	4072990.00	3972810.00	3750126.00	3581221.25	3523970.00
Aroclor 1016	5	Averaged	2912980.00	2694260.00	2551278.00	2433447.50	2424781.00
Aroclor 1221	1	Averaged	1168840.00	1110755.00	980478.000	981937.500	964273.000
Aroclor 1221	2	Averaged	612180.000	587450.000	526622.000	511427.500	501535.000
Aroclor 1221	3	Averaged	1505110.00	1446635.00	1316246.00	1333917.50	1314775.00
Aroclor 1221	4	Averaged	1181440.00	1150255.00	1038526.00	1067413.75	1091213.00
Aroclor 1221	5	Averaged	3492190.00	3470535.00	3167038.00	3088411.25	3058814.00
Aroclor 1242	1	Averaged	2772560.00	2688000.00	2505132.00	2371062.50	2329239.00
Aroclor 1242	2	Averaged	2739500.00	2600755.00	2506348.00	2392166.25	2361398.00
Aroclor 1242	3	Averaged	7695890.00	7473100.00	6971326.00	6735328.75	6706645.00
Aroclor 1242	4	Averaged	3287540.00	3169245.00	3017986.00	2875101.25	2857801.00
Aroclor 1242	5	Averaged	2247420.00	2077595.00	2062930.00	1928282.50	1922507.00
Aroclor 1248	1	Averaged	2522640.00	2478140.00	2346396.00	2184111.25	2183582.00
Aroclor 1248	2	Averaged	4441400.00	4466680.00	4104774.00	3847133.75	3891542.00
Aroclor 1248	3	Averaged	2175950.00	2100970.00	2034380.00	1911980.00	1927121.00
Aroclor 1248	4	Averaged	5384910.00	5302865.00	5054976.00	4695606.25	4748871.00
Aroclor 1248	5	Averaged	3757360.00	3770200.00	3588002.00	3386248.75	3440920.00
Aroclor 1254	1	Averaged	5783370.00	5652575.00	5120584.00	4858101.25	4761607.00
Aroclor 1254	2	Averaged	4616750.00	4581855.00	4225042.00	4064631.25	4016994.00
Aroclor 1254	3	Averaged	8435240.00	8286960.00	7623568.00	7277021.25	7207530.00
Aroclor 1254	4	Averaged	5140880.00	5151350.00	4826428.00	4638268.75	4591491.00
Aroclor 1254	5	Averaged	7015020.00	6981970.00	6368818.00	6122333.75	6047377.00
Aroclor 1260	1	Averaged	9569990.00	9323545.00	8657528.00	8388552.50	8372147.00
Aroclor 1260	2	Averaged	10746610.0	10429350.0	9816406.00	9526972.50	9552528.00
Aroclor 1260	3	Averaged	5052370.00	4986225.00	4721308.00	4577403.75	4561709.00
Aroclor 1260	4	Averaged	3131020.00	3037915.00	2887698.00	2771190.00	2747730.00

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 4:19

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40157940

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 12:07 19:39

LAB FILE ID

CAL1A =	030618.B\030618058.D	CAL1B =	030618.B\030618022.D	CAL1C =	030618.B\030618046.D
CAL1D =	030618.B\030618034.D	CAL1F =	030618.B\030618010.D	CAL2A =	030618.B\030618060.D
CAL2B =	030618.B\030618024.D	CAL2C =	030618.B\030618048.D	CAL2D =	030618.B\030618036.D
CAL2F =	030618.B\030618012.D	CAL3A =	030618.B\030618062.D	CAL3B =	030618.B\030618026.D
CAL3C =	030618.B\030618050.D	CAL3D =	030618.B\030618038.D	CAL3F =	030618.B\030618014.D
CAL4A =	030618.B\030618064.D	CAL4B =	030618.B\030618028.D	CAL4C =	030618.B\030618052.D
CAL4D =	030618.B\030618040.D	CAL4F =	030618.B\030618016.D	CAL5A =	030618.B\030618066.D
CAL5B =	030618.B\030618030.D	CAL5C =	030618.B\030618054.D	CAL5D =	030618.B\030618042.D
CAL5F =	030618.B\030618018.D				

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5
Aroclor 1260	5	Averaged	2853590.00	2718235.00	2625044.00	2511683.75	2485127.00
Decachlorobiphenyl (S)		Averaged	125223400.	114228350.	106255020.	101602250.	100490933.
Tetrachloro-m-xylene		Averaged	126550100.	124974300.	121144740.	121809550.	121996840.

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40157940

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 12:07 19:39

LAB FILE ID

CAL1A = 030618.B\030618058.D CAL1B = 030618.B\030618022.D CAL1C = 030618.B\030618046.D

CAL1D = 030618.B\030618034.D CAL1F = 030618.B\030618010.D CAL2A = 030618.B\030618060.D

CAL2B = 030618.B\030618024.D CAL2C = 030618.B\030618048.D CAL2D = 030618.B\030618036.D

CAL2F = 030618.B\030618012.D CAL3A = 030618.B\030618062.D CAL3B = 030618.B\030618026.D

CAL3C = 030618.B\030618050.D CAL3D = 030618.B\030618038.D CAL3F = 030618.B\030618014.D

CAL4A = 030618.B\030618064.D CAL4B = 030618.B\030618028.D CAL4C = 030618.B\030618052.D

CAL4D = 030618.B\030618040.D CAL4F = 030618.B\030618016.D CAL5A = 030618.B\030618066.D

CAL5B = 030618.B\030618030.D CAL5C = 030618.B\030618054.D CAL5D = 030618.B\030618042.D

CAL5F = 030618.B\030618018.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	7.12			3080830.60	
Aroclor 1016	2	Averaged	6.26			3099002.40	
Aroclor 1016	3	Averaged	6.38			8861786.20	
Aroclor 1016	4	Averaged	6.32			3780223.45	
Aroclor 1016	5	Averaged	7.86			2603349.30	
Aroclor 1221	1	Averaged	8.88			1041256.70	
Aroclor 1221	2	Averaged	8.95			547842.90	
Aroclor 1221	3	Averaged	6.31			1383336.70	
Aroclor 1221	4	Averaged	5.33			1105769.55	
Aroclor 1221	5	Averaged	6.45			3255397.65	
Aroclor 1242	1	Averaged	7.64			2533198.70	
Aroclor 1242	2	Averaged	6.15			2520033.45	
Aroclor 1242	3	Averaged	6.27			7116457.95	
Aroclor 1242	4	Averaged	6.12			3041534.65	
Aroclor 1242	5	Averaged	6.50			2047746.90	
Aroclor 1248	1	Averaged	6.78			2342973.85	
Aroclor 1248	2	Averaged	7.08			4150305.95	
Aroclor 1248	3	Averaged	5.55			2030080.20	
Aroclor 1248	4	Averaged	6.21			5037445.65	
Aroclor 1248	5	Averaged	4.91			3588546.15	
Aroclor 1254	1	Averaged	8.82			5235247.45	
Aroclor 1254	2	Averaged	6.58			4301054.45	
Aroclor 1254	3	Averaged	7.31			7766063.85	
Aroclor 1254	4	Averaged	5.48			4869683.55	
Aroclor 1254	5	Averaged	7.13			6507103.75	
Aroclor 1260	1	Averaged	6.23			8862352.50	
Aroclor 1260	2	Averaged	5.46			10014373.30	
Aroclor 1260	3	Averaged	4.78			4779803.15	
Aroclor 1260	4	Averaged	5.71			2915110.60	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 4:19

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40157940

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 12:07 19:39

LAB FILE ID

CAL1A =	030618.B\030618058.D	CAL1B =	030618.B\030618022.D	CAL1C =	030618.B\030618046.D
CAL1D =	030618.B\030618034.D	CAL1F =	030618.B\030618010.D	CAL2A =	030618.B\030618060.D
CAL2B =	030618.B\030618024.D	CAL2C =	030618.B\030618048.D	CAL2D =	030618.B\030618036.D
CAL2F =	030618.B\030618012.D	CAL3A =	030618.B\030618062.D	CAL3B =	030618.B\030618026.D
CAL3C =	030618.B\030618050.D	CAL3D =	030618.B\030618038.D	CAL3F =	030618.B\030618014.D
CAL4A =	030618.B\030618064.D	CAL4B =	030618.B\030618028.D	CAL4C =	030618.B\030618052.D
CAL4D =	030618.B\030618040.D	CAL4F =	030618.B\030618016.D	CAL5A =	030618.B\030618066.D
CAL5B =	030618.B\030618030.D	CAL5C =	030618.B\030618054.D	CAL5D =	030618.B\030618042.D
CAL5F =	030618.B\030618018.D				

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1260	5	Averaged	5.76			2638735.95	
Decachlorobiphenyl (S)		Averaged	9.39			109559990.6	
Tetrachloro-m-xylene		Averaged	1.89			123295106.0	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40157940

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 12:07 19:39

LAB FILE ID

CAL1A = 030618.B\030618058.D CAL1B = 030618.B\030618022.D CAL1C = 030618.B\030618046.D

CAL1D = 030618.B\030618034.D CAL1F = 030618.B\030618010.D CAL2A = 030618.B\030618060.D

CAL2B = 030618.B\030618024.D CAL2C = 030618.B\030618048.D CAL2D = 030618.B\030618036.D

CAL2F = 030618.B\030618012.D CAL3A = 030618.B\030618062.D CAL3B = 030618.B\030618026.D

CAL3C = 030618.B\030618050.D CAL3D = 030618.B\030618038.D CAL3F = 030618.B\030618014.D

CAL4A = 030618.B\030618064.D CAL4B = 030618.B\030618028.D CAL4C = 030618.B\030618052.D

CAL4D = 030618.B\030618040.D CAL4F = 030618.B\030618016.D CAL5A = 030618.B\030618066.D

CAL5B = 030618.B\030618030.D CAL5C = 030618.B\030618054.D CAL5D = 030618.B\030618042.D

CAL5F = 030618.B\030618018.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	RT	RT WINDOW	
								FROM	TO
Aroclor 1016	1	3.318	3.317	3.317	3.317	3.318	3.318	3.284	3.352
Aroclor 1016	2	3.513	3.513	3.512	3.512	3.512	3.512	3.478	3.546
Aroclor 1016	3	3.826	3.826	3.826	3.826	3.826	3.826	3.792	3.86
Aroclor 1016	4	3.928	3.929	3.928	3.929	3.928	3.929	3.895	3.963
Aroclor 1016	5	3.995	3.994	3.994	3.995	3.994	3.994	3.96	4.028
Aroclor 1221	1	1.803	1.804	1.804	1.804	1.806	1.804	1.77	1.838
Aroclor 1221	2	2.406	2.407	2.407	2.407	2.407	2.407	2.373	2.441
Aroclor 1221	3	2.687	2.688	2.688	2.688	2.688	2.688	2.654	2.722
Aroclor 1221	4	2.789	2.789	2.79	2.789	2.789	2.789	2.755	2.823
Aroclor 1221	5	2.851	2.851	2.851	2.851	2.851	2.851	2.817	2.885
Aroclor 1242	1	3.318	3.318	3.317	3.318	3.318	3.318	3.284	3.352
Aroclor 1242	2	3.513	3.513	3.513	3.513	3.513	3.513	3.479	3.547
Aroclor 1242	3	3.826	3.826	3.827	3.827	3.827	3.827	3.793	3.861
Aroclor 1242	4	3.928	3.929	3.929	3.93	3.929	3.929	3.895	3.963
Aroclor 1242	5	3.995	3.994	3.995	3.995	3.994	3.995	3.961	4.029
Aroclor 1248	1	4.261	4.261	4.261	4.261	4.261	4.261	4.227	4.295
Aroclor 1248	2	4.546	4.545	4.545	4.545	4.545	4.546	4.512	4.58
Aroclor 1248	3	4.814	4.813	4.813	4.813	4.813	4.812	4.778	4.846
Aroclor 1248	4	4.879	4.878	4.879	4.878	4.879	4.879	4.845	4.913
Aroclor 1248	5	5.037	5.036	5.037	5.038	5.037	5.038	5.004	5.072
Aroclor 1254	1	5.163	5.162	5.163	5.162	5.163	5.162	5.128	5.196
Aroclor 1254	2	5.408	5.407	5.407	5.407	5.407	5.408	5.374	5.442
Aroclor 1254	3	5.51	5.51	5.51	5.509	5.51	5.51	5.476	5.544
Aroclor 1254	4	6.026	6.026	6.026	6.027	6.027	6.027	5.993	6.061
Aroclor 1254	5	6.299	6.299	6.299	6.299	6.299	6.299	6.265	6.333
Aroclor 1260	1	6.3	6.3	6.299	6.3	6.299	6.3	6.266	6.334
Aroclor 1260	2	7.006	7.006	7.005	7.005	7.005	7.006	6.972	7.04
Aroclor 1260	3	7.252	7.252	7.251	7.252	7.251	7.251	7.217	7.285

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 4:19

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40157940

Calibration Date(s): 03/06/2018 03/06/2018 Calibration Time(s): 12:07 19:39

LAB FILE ID

CAL1A =	030618.B\030618058.D	CAL1B =	030618.B\030618022.D	CAL1C =	030618.B\030618046.D
CAL1D =	030618.B\030618034.D	CAL1F =	030618.B\030618010.D	CAL2A =	030618.B\030618060.D
CAL2B =	030618.B\030618024.D	CAL2C =	030618.B\030618048.D	CAL2D =	030618.B\030618036.D
CAL2F =	030618.B\030618012.D	CAL3A =	030618.B\030618062.D	CAL3B =	030618.B\030618026.D
CAL3C =	030618.B\030618050.D	CAL3D =	030618.B\030618038.D	CAL3F =	030618.B\030618014.D
CAL4A =	030618.B\030618064.D	CAL4B =	030618.B\030618028.D	CAL4C =	030618.B\030618052.D
CAL4D =	030618.B\030618040.D	CAL4F =	030618.B\030618016.D	CAL5A =	030618.B\030618066.D
CAL5B =	030618.B\030618030.D	CAL5C =	030618.B\030618054.D	CAL5D =	030618.B\030618042.D
CAL5F =	030618.B\030618018.D				

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	RT	RT WINDOW	
								FROM	TO
Aroclor 1260	4	7.444	7.443	7.443	7.443	7.443	7.443	7.409	7.477
Aroclor 1260	5	7.902	7.9	7.901	7.901	7.9	7.901	7.867	7.935
Decachlorobiphenyl (S)		8.572	8.572	8.571	8.571	8.571	8.571	8.537	8.605
Tetrachloro-m-xylene		2.485	2.484	2.484	2.484	2.485	2.484	2.45	2.518

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSJ GC Column: Col 1 SDG No.: 40157940

Calibration Date(s): 03/06/2018 Calibration Time(s): 11:50

LAB FILE ID

CAL3S = 030618.B\030618008.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.5	1	2.851	2.817	2.885	2500024.00
Aroclor 1232	.5	2	3.513	3.479	3.547	1339782.00
Aroclor 1232	.5	3	3.827	3.793	3.861	3749726.00
Aroclor 1232	.5	4	3.929	3.895	3.963	1606492.00
Aroclor 1232	.5	5	3.995	3.961	4.029	1091876.00

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB Low Level Calibration % Difference Check

Lab Name: Pace Analytical - Green Bay
Instrument ID: 40GCSJ
Calibration Date: 3/6/2018

Aroclor	True Value	Abundance Concentration	% Difference	Acceptance Criteria %	Pass/Fail
AR1221-CAL1	.1	0.109383	9.383	20	Pass
AR1242-CAL1	.1	0.108828	8.828	20	Pass
AR1248-CAL1	.1	0.106694	6.694	20	Pass
AR1254-CAL1	.1	0.10796	7.96	20	Pass
AR1016-CAL1	.1	0.109056	9.056	20	Pass
AR1260-CAL1	.1	0.10731	7.31	20	Pass

SAMPLE NO.

10757904ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 20:11

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618070.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1221	1	Averaged	1.804	1.77	1.838	1041256.70	1074308.00	3.1742
Aroclor 1221	2	Averaged	2.407	2.373	2.441	547842.900	558458.000	1.9376
Aroclor 1221	3	Averaged	2.688	2.654	2.722	1383336.70	1446642.00	4.5763
Aroclor 1221	4	Averaged	2.789	2.755	2.823	1105769.55	1114194.00	0.7619
Aroclor 1221	5	Averaged	2.851	2.817	2.885	3255397.65	3446964.00	5.8846
Decachlorobiphenyl (S)		Averaged	8.571	8.537	8.605	109559990.	106438520.	-2.8491
Tetrachloro-m-xylene		Averaged	2.484	2.45	2.518	123295106.	119469080.	-3.1031

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:04

SAMPLE NO.

10757932ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 20:27

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618072.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1242	1	Averaged	3.317	3.284	3.352	2533198.70	2574948.00	1.6481
Aroclor 1242	2	Averaged	3.513	3.479	3.547	2520033.45	2587724.00	2.6861
Aroclor 1242	3	Averaged	3.825	3.793	3.861	7116457.95	7162442.00	0.6462
Aroclor 1242	4	Averaged	3.928	3.895	3.963	3041534.65	3109342.00	2.2294
Aroclor 1242	5	Averaged	3.993	3.961	4.029	2047746.90	2082504.00	1.6973
Decachlorobiphenyl (S)		Averaged	8.571	8.537	8.605	109559990.	100680260.	-8.1049
Tetrachloro-m-xylene		Averaged	2.484	2.45	2.518	123295106.	117472720.	-4.7223

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

10757923ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 20:44

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618074.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1248	1	Averaged	4.261	4.227	4.295	2342973.85	2416006.00	3.1171
Aroclor 1248	2	Averaged	4.545	4.512	4.58	4150305.95	4272006.00	2.9323
Aroclor 1248	3	Averaged	4.813	4.778	4.846	2030080.20	2145142.00	5.6678
Aroclor 1248	4	Averaged	4.879	4.845	4.913	5037445.65	5257174.00	4.3619
Aroclor 1248	5	Averaged	5.037	5.004	5.072	3588546.15	3781714.00	5.3829
Decachlorobiphenyl (S)		Averaged	8.57	8.537	8.605	109559990.	103468660.	-5.5598
Tetrachloro-m-xylene		Averaged	2.485	2.45	2.518	123295106.	117995220.	-4.2985

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:04

SAMPLE NO.

10757930ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 21:00

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618076.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{\text{RRF}}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1254	1	Averaged	5.162	5.128	5.196	5235247.45	4908596.00	-6.2395
Aroclor 1254	2	Averaged	5.406	5.374	5.442	4301054.45	4023996.00	-6.4416
Aroclor 1254	3	Averaged	5.51	5.476	5.544	7766063.85	7114120.00	-8.3948
Aroclor 1254	4	Averaged	6.026	5.993	6.061	4869683.55	4559312.00	-6.3735
Aroclor 1254	5	Averaged	6.299	6.265	6.333	6507103.75	6351522.00	-2.3910
Decachlorobiphenyl (S)		Averaged	8.571	8.537	8.605	109559990.	103892160.	-5.1733
Tetrachloro-m-xylene		Averaged	2.485	2.45	2.518	123295106.	119128800.	-3.3791

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:04

SAMPLE NO.

10757911ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 03/06/2018 Time: 21:16

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 030618.B\030618078.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	3.317	3.284	3.352	3080830.60	3151828.00	2.3045
Aroclor 1016	2	Averaged	3.512	3.478	3.546	3099002.40	3167044.00	2.1956
Aroclor 1016	3	Averaged	3.826	3.792	3.86	8861786.20	9017370.00	1.7557
Aroclor 1016	4	Averaged	3.928	3.895	3.963	3780223.45	3853260.00	1.9321
Aroclor 1016	5	Averaged	3.994	3.96	4.028	2603349.30	2572474.00	-1.1860
Aroclor 1260	1	Averaged	6.3	6.266	6.334	8862352.50	8433522.00	-4.8388
Aroclor 1260	2	Averaged	7.005	6.972	7.04	10014373.3	10338502.0	3.2366
Aroclor 1260	3	Averaged	7.251	7.217	7.285	4779803.15	4863954.00	1.7606
Aroclor 1260	4	Averaged	7.442	7.409	7.477	2915110.60	2985660.00	2.4201
Aroclor 1260	5	Averaged	7.901	7.867	7.935	2638735.95	2816390.00	6.7325
Decachlorobiphenyl (S)		Averaged	8.571	8.537	8.605	109559990.	104964120.	-4.1948
Tetrachloro-m-xylene		Averaged	2.484	2.45	2.518	123295106.	118641800.	-3.7741

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:04

SAMPLE NO.

10924579CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 04/25/2018 Time: 14:10

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 042518.B\042518004.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1248	1	Averaged	4.26	4.227	4.295	2342973.85	2530596.00	8.0079
Aroclor 1248	2	Averaged	4.544	4.512	4.58	4150305.95	4398666.00	5.9841
Aroclor 1248	3	Averaged	4.812	4.778	4.846	2030080.20	2206704.00	8.7003
Aroclor 1248	4	Averaged	4.878	4.845	4.913	5037445.65	5457508.00	8.3388
Aroclor 1248	5	Averaged	5.036	5.004	5.072	3588546.15	3885012.00	8.2614
Decachlorobiphenyl (S)		Averaged	8.57	8.537	8.605	109559990.	117438800.	7.1913
Tetrachloro-m-xylene		Averaged	2.485	2.45	2.518	123295106.	125746760.	1.9884

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:04

SAMPLE NO.

10924570CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 04/25/2018 Time: 17:20

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 042518.B\042518016.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1254	1	Averaged	5.161	5.128	5.196	5235247.45	5620066.00	7.3505
Aroclor 1254	2	Averaged	5.405	5.374	5.442	4301054.45	4664408.00	8.4480
Aroclor 1254	3	Averaged	5.509	5.476	5.544	7766063.85	8393614.00	8.0807
Aroclor 1254	4	Averaged	6.026	5.993	6.061	4869683.55	5331866.00	9.4910
Aroclor 1254	5	Averaged	6.297	6.265	6.333	6507103.75	7144636.00	9.7975
Decachlorobiphenyl (S)		Averaged	8.57	8.537	8.605	109559990.	119497680.	9.0705
Tetrachloro-m-xylene		Averaged	2.485	2.45	2.518	123295106.	127691700.	3.5659

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:04

SAMPLE NO.

10929577CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 04/25/2018 Time: 20:30

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 042518.B\042518028.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	3.317	3.284	3.352	3080830.60	3206322.00	4.0733
Aroclor 1016	2	Averaged	3.511	3.478	3.546	3099002.40	3190680.00	2.9583
Aroclor 1016	3	Averaged	3.825	3.792	3.86	8861786.20	9350570.00	5.5156
Aroclor 1016	4	Averaged	3.928	3.895	3.963	3780223.45	3977920.00	5.2298
Aroclor 1016	5	Averaged	3.993	3.96	4.028	2603349.30	2689516.00	3.3098
Aroclor 1260	1	Averaged	6.298	6.266	6.334	8862352.50	9427436.00	6.3762
Aroclor 1260	2	Averaged	7.004	6.972	7.04	10014373.3	10822446.0	8.0691
Aroclor 1260	3	Averaged	7.25	7.217	7.285	4779803.15	5192478.00	8.6337
Aroclor 1260	4	Averaged	7.441	7.409	7.477	2915110.60	3141170.00	7.7547
Aroclor 1260	5	Averaged	7.9	7.867	7.935	2638735.95	2873146.00	8.8834
Decachlorobiphenyl (S)		Averaged	8.569	8.537	8.605	109559990.	119173260.	8.7744
Tetrachloro-m-xylene		Averaged	2.484	2.45	2.518	123295106.	125773600.	2.0102

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:04

SAMPLE NO.

10929576CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 04/25/2018 Time: 22:21

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 042518.B\042518035.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1221	1	Averaged	1.805	1.77	1.838	1041256.70	1030802.00	-1.0040
Aroclor 1221	2	Averaged	2.406	2.373	2.441	547842.900	525572.000	-4.0652
Aroclor 1221	3	Averaged	2.688	2.654	2.722	1383336.70	1419288.00	2.5989
Aroclor 1221	4	Averaged	2.789	2.755	2.823	1105769.55	1104446.00	-0.1197
Aroclor 1221	5	Averaged	2.85	2.817	2.885	3255397.65	3390106.00	4.1380
Decachlorobiphenyl (S)		Averaged	8.57	8.537	8.605	109559990.	115082560.	5.0407
Tetrachloro-m-xylene		Averaged	2.484	2.45	2.518	123295106.	120420220.	-2.3317

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:04

SAMPLE NO.

10929690CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay
Calibration Date: 04/26/2018 Time: 13:24

Instrument ID: 40GCSJ GC Column: Col 1
Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 042618.B\042618004.D
Init. Calib. Time(s): 11:02 19:39

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1232	1	Averaged	2.851	2.817	2.885	2500024.00	2906546.00	16.2607
Aroclor 1232	2	Averaged	3.513	3.479	3.547	1339782.00	1515042.00	13.0812
Aroclor 1232	3	Averaged	3.826	3.793	3.861	3749726.00	4311044.00	14.9696
Aroclor 1232	4	Averaged	3.929	3.895	3.963	1606492.00	1847322.00	14.9910
Aroclor 1232	5	Averaged	3.994	3.961	4.029	1091876.00	1230572.00	12.7025
Decachlorobiphenyl (S)		Averaged	8.571	8.537	8.605	109559990.	119579340.	9.1451
Tetrachloro-m-xylene		Averaged	2.485	2.45	2.518	123295106.	129761940.	5.2450

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:05

SAMPLE NO.

10929689CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 04/26/2018 Time: 16:35

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 042618.B\042618016.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1242	1	Averaged	3.318	3.284	3.352	2533198.70	2710848.00	7.0128
Aroclor 1242	2	Averaged	3.514	3.479	3.547	2520033.45	2694942.00	6.9407
Aroclor 1242	3	Averaged	3.826	3.793	3.861	7116457.95	7792916.00	9.5055
Aroclor 1242	4	Averaged	3.929	3.895	3.963	3041534.65	3328866.00	9.4469
Aroclor 1242	5	Averaged	3.994	3.961	4.029	2047746.90	2241012.00	9.4379
Decachlorobiphenyl (S)		Averaged	8.572	8.537	8.605	109559990.	117860220.	7.5760
Tetrachloro-m-xylene		Averaged	2.484	2.45	2.518	123295106.	125581020.	1.8540

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:06

SAMPLE NO.

10931423CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay
Calibration Date: 04/27/2018 Time: 09:21

Instrument ID: 40GCSJ GC Column: Col 1
Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 042718.B\042718005.D
Init. Calib. Time(s): 11:02 19:39

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	3.318	3.284	3.352	3080830.60	3311164.00	7.4763
Aroclor 1016	2	Averaged	3.512	3.478	3.546	3099002.40	3324506.00	7.2767
Aroclor 1016	3	Averaged	3.827	3.792	3.86	8861786.20	9569930.00	7.9910
Aroclor 1016	4	Averaged	3.929	3.895	3.963	3780223.45	4084788.00	8.0568
Aroclor 1016	5	Averaged	3.994	3.96	4.028	2603349.30	2755316.00	5.8374
Aroclor 1260	1	Averaged	6.3	6.266	6.334	8862352.50	9552624.00	7.7888
Aroclor 1260	2	Averaged	7.005	6.972	7.04	10014373.3	10893446.0	8.7781
Aroclor 1260	3	Averaged	7.252	7.217	7.285	4779803.15	5226980.00	9.3555
Aroclor 1260	4	Averaged	7.443	7.409	7.477	2915110.60	3183828.00	9.2181
Aroclor 1260	5	Averaged	7.901	7.867	7.935	2638735.95	2876820.00	9.0227
Decachlorobiphenyl (S)		Averaged	8.571	8.537	8.605	109559990.	120662260.	10.1335
Tetrachloro-m-xylene		Averaged	2.484	2.45	2.518	123295106.	131029680.	6.2732

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:05

SAMPLE NO.

10931422CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 04/27/2018 Time: 12:04

Instrument ID: 40GCSJ GC Column: Col 1 Init. Calib. Date(s): 03/06/2018 03/06/2018

Lab File ID: 042718.B\042718014.D Init. Calib. Time(s): 11:02 19:39

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1221	1	Averaged	1.804	1.77	1.838	1041256.70	1100886.00	5.7267
Aroclor 1221	2	Averaged	2.406	2.373	2.441	547842.900	565428.000	3.2099
Aroclor 1221	3	Averaged	2.687	2.654	2.722	1383336.70	1496442.00	8.1763
Aroclor 1221	4	Averaged	2.789	2.755	2.823	1105769.55	1162706.00	5.1490
Aroclor 1221	5	Averaged	2.85	2.817	2.885	3255397.65	3574620.00	9.8059
Decachlorobiphenyl (S)		Averaged	8.571	8.537	8.605	109559990.	118515540.	8.1741
Tetrachloro-m-xylene		Averaged	2.484	2.45	2.518	123295106.	128389860.	4.1322

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:06

PCB - FORM VI SVOA-1
PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSK GC Column: Col 1 SDG No.: 40157940

Calibration Date(s): 05/03/2018 05/03/2018 Calibration Time(s): 10:54 18:26

LAB FILE ID

CAL1A = 050318.B\050318057.D CAL1B = 050318.B\050318021.D CAL1C = 050318.B\050318045.D
CAL1D = 050318.B\050318033.D CAL1F = 050318.B\050318009.D CAL2A = 050318.B\050318059.D
CAL2B = 050318.B\050318023.D CAL2C = 050318.B\050318047.D CAL2D = 050318.B\050318035.D
CAL2F = 050318.B\050318011.D CAL3A = 050318.B\050318061.D CAL3B = 050318.B\050318025.D
CAL3C = 050318.B\050318049.D CAL3D = 050318.B\050318037.D CAL3F = 050318.B\050318013.D
CAL4A = 050318.B\050318063.D CAL4B = 050318.B\050318027.D CAL4C = 050318.B\050318051.D
CAL4D = 050318.B\050318039.D CAL4F = 050318.B\050318015.D CAL5A = 050318.B\050318065.D
CAL5B = 050318.B\050318029.D CAL5C = 050318.B\050318053.D CAL5D = 050318.B\050318041.D
CAL5F = 050318.B\050318017.D

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5
Aroclor 1016	1	Averaged	3226830.00	3214890.00	3099390.00	2936223.75	2816368.00
Aroclor 1016	2	Averaged	3426870.00	3282010.00	3196364.00	3025390.00	2923969.00
Aroclor 1016	3	Averaged	9792050.00	9801085.00	9416772.00	9088905.00	8886004.00
Aroclor 1016	4	Averaged	4283190.00	4182570.00	4056290.00	3840508.75	3741518.00
Aroclor 1016	5	Averaged	2846930.00	2773990.00	2750986.00	2588326.25	2529476.00
Aroclor 1221	1	Averaged	1072930.00	1056575.00	963810.000	945701.250	912984.000
Aroclor 1221	2	Averaged	609940.000	541470.000	512828.000	492945.000	478736.000
Aroclor 1221	3	Averaged	1451360.00	1429315.00	1349672.00	1372628.75	1331974.00
Aroclor 1221	4	Averaged	1127220.00	1143945.00	1067226.00	1087150.00	1092035.00
Aroclor 1221	5	Averaged	3524300.00	3517660.00	3282850.00	3232473.75	3158162.00
Aroclor 1242	1	Averaged	2713170.00	2557185.00	2374006.00	2234975.00	2222470.00
Aroclor 1242	2	Averaged	2798950.00	2528770.00	2413564.00	2291745.00	2273072.00
Aroclor 1242	3	Averaged	7951690.00	7634755.00	7053656.00	6807721.25	6829835.00
Aroclor 1242	4	Averaged	3482340.00	3295345.00	3030816.00	2902472.50	2870213.00
Aroclor 1242	5	Averaged	2436090.00	2121480.00	2023398.00	1945076.25	1940441.00
Aroclor 1248	1	Averaged	2456240.00	2537550.00	2411430.00	2248226.25	2273295.00
Aroclor 1248	2	Averaged	4291080.00	4562680.00	4325300.00	3986956.25	4071185.00
Aroclor 1248	3	Averaged	1996230.00	2105285.00	2090798.00	1974668.75	2018218.00
Aroclor 1248	4	Averaged	5642540.00	5832570.00	5524508.00	5151295.00	5236055.00
Aroclor 1248	5	Averaged	3753500.00	3954320.00	3845468.00	3636438.75	3726636.00
Aroclor 1254	1	Averaged	6052220.00	6024570.00	5641990.00	5331835.00	5147482.00
Aroclor 1254	2	Averaged	4837540.00	4873840.00	4718368.00	4503321.25	4385746.00
Aroclor 1254	3	Averaged	9088090.00	9067030.00	8515712.00	8188597.50	7950560.00
Aroclor 1254	4	Averaged	5250130.00	5515500.00	5430814.00	5252518.75	5115408.00
Aroclor 1254	5	Averaged	7569040.00	7663545.00	7379306.00	7075227.50	6918346.00
Aroclor 1260	1	Averaged	10453040.0	10301025.0	10038194.0	9713460.00	9544191.00
Aroclor 1260	2	Averaged	12183150.0	12067250.0	11801074.0	11484917.5	11310002.0
Aroclor 1260	3	Averaged	5691220.00	5822245.00	5709174.00	5574191.25	5484640.00
Aroclor 1260	4	Averaged	3569510.00	3576420.00	3443486.00	3276160.00	3228577.00

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 4:19

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSK GC Column: Col 1 SDG No.: 40157940

Calibration Date(s): 05/03/2018 05/03/2018 Calibration Time(s): 10:54 18:26

LAB FILE ID

CAL1A =	050318.B\050318057.D	CAL1B =	050318.B\050318021.D	CAL1C =	050318.B\050318045.D
CAL1D =	050318.B\050318033.D	CAL1F =	050318.B\050318009.D	CAL2A =	050318.B\050318059.D
CAL2B =	050318.B\050318023.D	CAL2C =	050318.B\050318047.D	CAL2D =	050318.B\050318035.D
CAL2F =	050318.B\050318011.D	CAL3A =	050318.B\050318061.D	CAL3B =	050318.B\050318025.D
CAL3C =	050318.B\050318049.D	CAL3D =	050318.B\050318037.D	CAL3F =	050318.B\050318013.D
CAL4A =	050318.B\050318063.D	CAL4B =	050318.B\050318027.D	CAL4C =	050318.B\050318051.D
CAL4D =	050318.B\050318039.D	CAL4F =	050318.B\050318015.D	CAL5A =	050318.B\050318065.D
CAL5B =	050318.B\050318029.D	CAL5C =	050318.B\050318053.D	CAL5D =	050318.B\050318041.D
CAL5F =	050318.B\050318017.D				

COMPOUND	PEAK	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5
Aroclor 1260	5	Averaged	3302230.00	3276995.00	3205912.00	3056618.75	2993726.00
Decachlorobiphenyl (S)		Averaged	147518500.	136951500.	132501260.	125984890.	122996913.
Tetrachloro-m-xylene		Averaged	122740900.	118987500.	122013680.	119559600.	118904826.

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 4:19

PCB - FORM VI SVOA-3

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSK GC Column: Col 1 SDG No.: 40157940

Calibration Date(s): 05/03/2018 05/03/2018 Calibration Time(s): 10:54 18:26

LAB FILE ID

CAL1A = 050318.B\050318057.D CAL1B = 050318.B\050318021.D CAL1C = 050318.B\050318045.D

CAL1D = 050318.B\050318033.D CAL1F = 050318.B\050318009.D CAL2A = 050318.B\050318059.D

CAL2B = 050318.B\050318023.D CAL2C = 050318.B\050318047.D CAL2D = 050318.B\050318035.D

CAL2F = 050318.B\050318011.D CAL3A = 050318.B\050318061.D CAL3B = 050318.B\050318025.D

CAL3C = 050318.B\050318049.D CAL3D = 050318.B\050318037.D CAL3F = 050318.B\050318013.D

CAL4A = 050318.B\050318063.D CAL4B = 050318.B\050318027.D CAL4C = 050318.B\050318051.D

CAL4D = 050318.B\050318039.D CAL4F = 050318.B\050318015.D CAL5A = 050318.B\050318065.D

CAL5B = 050318.B\050318029.D CAL5C = 050318.B\050318053.D CAL5D = 050318.B\050318041.D

CAL5F = 050318.B\050318017.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1016	1	Averaged	5.84			3058740.35	
Aroclor 1016	2	Averaged	6.32			3170920.60	
Aroclor 1016	3	Averaged	4.37			9396963.20	
Aroclor 1016	4	Averaged	5.65			4020815.35	
Aroclor 1016	5	Averaged	4.94			2697941.65	
Aroclor 1221	1	Averaged	7.11			990400.05	
Aroclor 1221	2	Averaged	9.84			527183.80	
Aroclor 1221	3	Averaged	3.70			1386989.95	
Aroclor 1221	4	Averaged	2.83			1103515.20	
Aroclor 1221	5	Averaged	5.03			3343089.15	
Aroclor 1242	1	Averaged	8.76			2420361.20	
Aroclor 1242	2	Averaged	8.73			2461220.20	
Aroclor 1242	3	Averaged	7.06			7255531.45	
Aroclor 1242	4	Averaged	8.48			3116237.30	
Aroclor 1242	5	Averaged	9.80			2093297.05	
Aroclor 1248	1	Averaged	5.14			2385348.25	
Aroclor 1248	2	Averaged	5.34			4247440.25	
Aroclor 1248	3	Averaged	2.84			2037039.95	
Aroclor 1248	4	Averaged	5.16			5477393.60	
Aroclor 1248	5	Averaged	3.20			3783272.55	
Aroclor 1254	1	Averaged	7.17			5639619.40	
Aroclor 1254	2	Averaged	4.55			4663763.05	
Aroclor 1254	3	Averaged	5.97	✓		8561997.90	
Aroclor 1254	4	Averaged	2.99	✓		5312874.15	✓
Aroclor 1254	5	Averaged	4.34			7321092.90	
Aroclor 1260	1	Averaged	3.82	✓		10009982.00	
Aroclor 1260	2	Averaged	3.15	✓		11769278.70	✓
Aroclor 1260	3	Averaged	2.30			5656294.05	
Aroclor 1260	4	Averaged	4.73			3418830.60	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 4:19

PCB - FORM VI SVOA-4

PCB INITIAL CALIBRATION (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSK GC Column: Col 1 SDG No.: 40157940

Calibration Date(s): 05/03/2018 05/03/2018 Calibration Time(s): 10:54 18:26

LAB FILE ID

CAL1A = 050318.B\050318057.D CAL1B = 050318.B\050318021.D CAL1C = 050318.B\050318045.D

CAL1D = 050318.B\050318033.D CAL1F = 050318.B\050318009.D CAL2A = 050318.B\050318059.D

CAL2B = 050318.B\050318023.D CAL2C = 050318.B\050318047.D CAL2D = 050318.B\050318035.D

CAL2F = 050318.B\050318011.D CAL3A = 050318.B\050318061.D CAL3B = 050318.B\050318025.D

CAL3C = 050318.B\050318049.D CAL3D = 050318.B\050318037.D CAL3F = 050318.B\050318013.D

CAL4A = 050318.B\050318063.D CAL4B = 050318.B\050318027.D CAL4C = 050318.B\050318051.D

CAL4D = 050318.B\050318039.D CAL4F = 050318.B\050318015.D CAL5A = 050318.B\050318065.D

CAL5B = 050318.B\050318029.D CAL5C = 050318.B\050318053.D CAL5D = 050318.B\050318041.D

CAL5F = 050318.B\050318017.D

COMPOUND	PEAK	CURVE TYPE	%RSD	R2	A1	A2	A3
Aroclor 1260	5	Averaged	4.29			3167096.35	
Decachlorobiphenyl (S)		Averaged	7.27			133190612.6	
Tetrachloro-m-xylene		Averaged	1.49			120441301.3	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 4:19

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSK GC Column: Col 1 SDG No.: 40157940

Calibration Date(s): 05/03/2018 05/03/2018 Calibration Time(s): 10:54 18:26

LAB FILE ID

CAL1A = 050318.B\050318057.D CAL1B = 050318.B\050318021.D CAL1C = 050318.B\050318045.D

CAL1D = 050318.B\050318033.D CAL1F = 050318.B\050318009.D CAL2A = 050318.B\050318059.D

CAL2B = 050318.B\050318023.D CAL2C = 050318.B\050318047.D CAL2D = 050318.B\050318035.D

CAL2F = 050318.B\050318011.D CAL3A = 050318.B\050318061.D CAL3B = 050318.B\050318025.D

CAL3C = 050318.B\050318049.D CAL3D = 050318.B\050318037.D CAL3F = 050318.B\050318013.D

CAL4A = 050318.B\050318063.D CAL4B = 050318.B\050318027.D CAL4C = 050318.B\050318051.D

CAL4D = 050318.B\050318039.D CAL4F = 050318.B\050318015.D CAL5A = 050318.B\050318065.D

CAL5B = 050318.B\050318029.D CAL5C = 050318.B\050318053.D CAL5D = 050318.B\050318041.D

CAL5F = 050318.B\050318017.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	RT	RT WINDOW	
								FROM	TO
Aroclor 1016	1	3.396	3.395	3.394	3.395	3.395	3.395	3.361	3.429
Aroclor 1016	2	3.592	3.592	3.593	3.593	3.593	3.592	3.558	3.626
Aroclor 1016	3	3.91	3.909	3.908	3.908	3.908	3.909	3.875	3.943
Aroclor 1016	4	4.012	4.012	4.012	4.011	4.011	4.011	3.977	4.045
Aroclor 1016	5	4.079	4.077	4.077	4.077	4.078	4.078	4.044	4.112
Aroclor 1221	1	1.854	1.854	1.854	1.853	1.853	1.853	1.819	1.887
Aroclor 1221	2	2.472	2.473	2.471	2.471	2.471	2.471	2.437	2.505
Aroclor 1221	3	2.759	2.759	2.758	2.758	2.758	2.758	2.724	2.792
Aroclor 1221	4	2.861	2.861	2.861	2.86	2.86	2.86	2.826	2.894
Aroclor 1221	5	2.924	2.924	2.924	2.923	2.924	2.923	2.889	2.957
Aroclor 1242	1	3.395	3.395	3.395	3.395	3.395	3.396	3.362	3.43
Aroclor 1242	2	3.593	3.593	3.593	3.593	3.593	3.592	3.558	3.626
Aroclor 1242	3	3.908	3.909	3.908	3.908	3.908	3.909	3.875	3.943
Aroclor 1242	4	4.012	4.012	4.012	4.011	4.011	4.011	3.977	4.045
Aroclor 1242	5	4.078	4.079	4.077	4.077	4.077	4.078	4.044	4.112
Aroclor 1248	1	4.344	4.344	4.344	4.343	4.344	4.343	4.309	4.377
Aroclor 1248	2	4.63	4.63	4.631	4.63	4.63	4.63	4.596	4.664
Aroclor 1248	3	4.898	4.899	4.898	4.898	4.897	4.898	4.864	4.932
Aroclor 1248	4	4.964	4.964	4.964	4.964	4.963	4.963	4.929	4.997
Aroclor 1248	5	5.124	5.124	5.123	5.123	5.123	5.123	5.089	5.157
Aroclor 1254	1	5.248	5.247	5.247	5.247	5.247	5.248	5.214	5.282
Aroclor 1254	2	5.493	5.494	5.493	5.493	5.493	5.492	5.458	5.526
Aroclor 1254	3	5.596	5.595	5.596	5.596	5.595	5.596	5.562	5.63
Aroclor 1254	4	6.114	6.115	6.114	6.113	6.114	6.113	6.079	6.147
Aroclor 1254	5	6.386	6.386	6.385	6.386	6.386	6.387	6.353	6.421
Aroclor 1260	1	6.387	6.386	6.386	6.387	6.386	6.387	6.353	6.421
Aroclor 1260	2	7.09	7.09	7.09	7.091	7.09	7.09	7.056	7.124
Aroclor 1260	3	7.338	7.338	7.338	7.338	7.338	7.338	7.304	7.372

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 4:19

PCB - FORM VI SVOA-2

PCB INITIAL CALIBRATION RETENTION TIME (MULTIPOINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSK GC Column: Col 1 SDG No.: 40157940

Calibration Date(s): 05/03/2018 05/03/2018 Calibration Time(s): 10:54 18:26

LAB FILE ID

CAL1A = 050318.B\050318057.D CAL1B = 050318.B\050318021.D CAL1C = 050318.B\050318045.D

CAL1D = 050318.B\050318033.D CAL1F = 050318.B\050318009.D CAL2A = 050318.B\050318059.D

CAL2B = 050318.B\050318023.D CAL2C = 050318.B\050318047.D CAL2D = 050318.B\050318035.D

CAL2F = 050318.B\050318011.D CAL3A = 050318.B\050318061.D CAL3B = 050318.B\050318025.D

CAL3C = 050318.B\050318049.D CAL3D = 050318.B\050318037.D CAL3F = 050318.B\050318013.D

CAL4A = 050318.B\050318063.D CAL4B = 050318.B\050318027.D CAL4C = 050318.B\050318051.D

CAL4D = 050318.B\050318039.D CAL4F = 050318.B\050318015.D CAL5A = 050318.B\050318065.D

CAL5B = 050318.B\050318029.D CAL5C = 050318.B\050318053.D CAL5D = 050318.B\050318041.D

CAL5F = 050318.B\050318017.D

COMPOUND	PEAK	CAL1	CAL2	CAL3	CAL4	CAL5	RT	RT WINDOW	
								FROM	TO
Aroclor 1260	4	7.529	7.528	7.529	7.528	7.528	7.529	7.495	7.563
Aroclor 1260	5	7.987	7.986	7.986	7.986	7.986	7.987	7.953	8.021
Decachlorobiphenyl (S)		8.657	8.656	8.657	8.658	8.657	8.657	8.623	8.691
Tetrachloro-m-xylene		2.549	2.548	2.549	2.549	2.549	2.549	2.515	2.583

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB - FORM VI SVOA-1

PCB INITIAL CALIBRATION DATA (SINGLE POINT)

Lab Name: Pace Analytical - Green Bay Instrument ID: 40GCSK GC Column: Col 1 SDG No.: 40157940

Calibration Date(s): 05/03/2018 Calibration Time(s): 10:38

LAB FILE ID

CAL3S = 050318.B\050318007.D

COMPOUND	AMOUNT	PEAK	RT	RT WINDOW		RESPONSE FACTOR
				FROM	TO	
Aroclor 1232	.5	1	2.923	2.888	2.956	2694578.00
Aroclor 1232	.5	2	3.592	3.558	3.626	1418110.00
Aroclor 1232	.5	3	3.908	3.874	3.942	4136332.00
Aroclor 1232	.5	4	4.011	3.977	4.045	1788600.00
Aroclor 1232	.5	5	4.077	4.044	4.112	1171600.00

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

PCB Low Level Calibration % Difference Check

Lab Name: Pace Analytical - Green Bay
Instrument ID: 40GCSK
Calibration Date: 5/3/2018

Aroclor	True Value	Abundance Concentration	% Difference	Acceptance Criteria %	Pass/Fail
AR1221-CAL1	.1	0.107248	7.248	20	Pass
AR1242-CAL1	.1	0.112708	12.708	20	Pass
AR1248-CAL1	.1	0.100845	0.845	20	Pass
AR1254-CAL1	.1	0.103878	3.878	20	Pass
AR1016-CAL1	.1	0.105964	5.964	20	Pass
AR1260-CAL1	.1	0.103447	3.447	20	Pass

SAMPLE NO.

10965753ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 05/03/2018 Time: 18:58

Instrument ID: 40GCSK GC Column: Col 1 Init. Calib. Date(s): 05/03/2018 05/03/2018

Lab File ID: 050318.B\050318069.D Init. Calib. Time(s): 10:38 18:26

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1221	1	Averaged	1.852	1.819	1.887	990400.050	1007748.00	1.7516
Aroclor 1221	2	Averaged	2.472	2.437	2.505	527183.800	525090.000	-0.3972
Aroclor 1221	3	Averaged	2.757	2.724	2.792	1386989.95	1434412.00	3.4191
Aroclor 1221	4	Averaged	2.861	2.826	2.894	1103515.20	1105148.00	0.1480
Aroclor 1221	5	Averaged	2.924	2.889	2.957	3343089.15	3473996.00	3.9157
Decachlorobiphenyl (S)		Averaged	8.658	8.623	8.691	133190612.	126277860.	-5.1901
Tetrachloro-m-xylene		Averaged	2.549	2.515	2.583	120441301.	114744400.	-4.7300

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:05

SAMPLE NO.

10965769ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 05/03/2018 Time: 19:14

Instrument ID: 40GCSK GC Column: Col 1 Init. Calib. Date(s): 05/03/2018 05/03/2018

Lab File ID: 050318.B\050318071.D Init. Calib. Time(s): 10:38 18:26

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1242	1	Averaged	3.395	3.362	3.43	2420361.20	2477562.00	2.3633
Aroclor 1242	2	Averaged	3.592	3.558	3.626	2461220.20	2532278.00	2.8871
Aroclor 1242	3	Averaged	3.908	3.875	3.943	7255531.45	7352366.00	1.3346
Aroclor 1242	4	Averaged	4.01	3.977	4.045	3116237.30	3192204.00	2.4378
Aroclor 1242	5	Averaged	4.077	4.044	4.112	2093297.05	2136002.00	2.0401
Decachlorobiphenyl (S)		Averaged	8.657	8.623	8.691	133190612.	120978920.	-9.1686
Tetrachloro-m-xylene		Averaged	2.548	2.515	2.583	120441301.	109577260.	-9.0202

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:05

SAMPLE NO.

10965760ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 05/03/2018 Time: 19:30

Instrument ID: 40GCSK GC Column: Col 1 Init. Calib. Date(s): 05/03/2018 05/03/2018

Lab File ID: 050318.B\050318073.D Init. Calib. Time(s): 10:38 18:26

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1248	1	Averaged	4.344	4.309	4.377	2385348.25	2537884.00	6.3947
Aroclor 1248	2	Averaged	4.63	4.596	4.664	4247440.25	4466132.00	5.1488
Aroclor 1248	3	Averaged	4.898	4.864	4.932	2037039.95	2219262.00	8.9454
Aroclor 1248	4	Averaged	4.964	4.929	4.997	5477393.60	5820260.00	6.2597
Aroclor 1248	5	Averaged	5.124	5.089	5.157	3783272.55	4083010.00	7.9227
Decachlorobiphenyl (S)		Averaged	8.657	8.623	8.691	133190612.	123503360.	-7.2732
Tetrachloro-m-xylene		Averaged	2.549	2.515	2.583	120441301.	114009700.	-5.3400

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:05

SAMPLE NO.

10965755ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 05/03/2018 Time: 19:47

Instrument ID: 40GCSK GC Column: Col 1 Init. Calib. Date(s): 05/03/2018 05/03/2018

Lab File ID: 050318.B\050318075.D Init. Calib. Time(s): 10:38 18:26

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1254	1	Averaged	5.247	5.214	5.282	5639619.40	5229098.00	-7.2792
Aroclor 1254	2	Averaged	5.493	5.458	5.526	4663763.05	4346390.00	-6.8051
Aroclor 1254	3	Averaged	5.596	5.562	5.63	8561997.90	7723550.00	-9.7927
Aroclor 1254	4	Averaged	6.115	6.079	6.147	5312874.15	4896798.00	-7.8315
Aroclor 1254	5	Averaged	6.386	6.353	6.421	7321092.90	7028970.00	-3.9902
Decachlorobiphenyl (S)		Averaged	8.658	8.623	8.691	133190612.	124092700.	-6.8307
Tetrachloro-m-xylene		Averaged	2.549	2.515	2.583	120441301.	114866640.	-4.6285

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:05

SAMPLE NO.

10965768ICV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 05/03/2018 Time: 20:03

Instrument ID: 40GCSK GC Column: Col 1 Init. Calib. Date(s): 05/03/2018 05/03/2018

Lab File ID: 050318.B\050318077.D Init. Calib. Time(s): 10:38 18:26

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1016	1	Averaged	3.394	3.361	3.429	3058740.35	3126392.00	2.2117
Aroclor 1016	2	Averaged	3.594	3.558	3.626	3170920.60	3168508.00	-0.0761
Aroclor 1016	3	Averaged	3.908	3.875	3.943	9396963.20	9468364.00	0.7598
Aroclor 1016	4	Averaged	4.011	3.977	4.045	4020815.35	4042920.00	0.5498
Aroclor 1016	5	Averaged	4.077	4.044	4.112	2697941.65	2682334.00	-0.5785
Aroclor 1260	1	Averaged	6.386	6.353	6.421	10009982.0	9413384.00	-5.9600
Aroclor 1260	2	Averaged	7.09	7.056	7.124	11769278.7	11929928.0	1.3650
Aroclor 1260	3	Averaged	7.337	7.304	7.372	5656294.05	5762990.00	1.8863
Aroclor 1260	4	Averaged	7.528	7.495	7.563	3418830.60	3409380.00	-0.2764
Aroclor 1260	5	Averaged	7.986	7.953	8.021	3167096.35	3374502.00	6.5488
Decachlorobiphenyl (S)		Averaged	8.656	8.623	8.691	133190612.	125009800.	-6.1422
Tetrachloro-m-xylene		Averaged	2.549	2.515	2.583	120441301.	112020020.	-6.9920

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:05

SAMPLE NO.

10983415CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 05/07/2018 Time: 14:06

Instrument ID: 40GCSK GC Column: Col 1 Init. Calib. Date(s): 05/03/2018 05/03/2018

Lab File ID: 050718.B\050718004.D Init. Calib. Time(s): 10:38 18:26

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1248	1	Averaged	4.344	4.309	4.377	2385348.25	2408228.00	0.9592
Aroclor 1248	2	Averaged	4.63	4.596	4.664	4247440.25	4179566.00	-1.5980
Aroclor 1248	3	Averaged	4.897	4.864	4.932	2037039.95	2085936.00	2.4003
Aroclor 1248	4	Averaged	4.964	4.929	4.997	5477393.60	5358524.00	-2.1702
Aroclor 1248	5	Averaged	5.123	5.089	5.157	3783272.55	3774028.00	-0.2444
Decachlorobiphenyl (S)		Averaged	8.656	8.623	8.691	133190612.	119784660.	-10.0652
Tetrachloro-m-xylene		Averaged	2.55	2.515	2.583	120441301.	112451580.	-6.6337

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:05

SAMPLE NO.

10983581CCV

PCB - FORM VII SVOA-1
PCB CALIBRATION VERIFICATION SUMMARY

Lab Name: Pace Analytical - Green Bay Calibration Date: 05/07/2018 Time: 17:17

Instrument ID: 40GCSK GC Column: Col 1 Init. Calib. Date(s): 05/03/2018 05/03/2018

Lab File ID: 050718.B\050718016.D Init. Calib. Time(s): 10:38 18:26

SDG No.: 40157940

COMPOUND	PEAK	CURVE	RT	RT WINDOW		$\overline{RRF}$ or Amount	RRF or Amount	%D
				FROM	TO			
Aroclor 1254	1	Averaged	5.247	5.214	5.282	5639619.40	5407266.00	-4.1200
Aroclor 1254	2	Averaged	5.493	5.458	5.526	4663763.05	4515790.00	-3.1728
Aroclor 1254	3	Averaged	5.595	5.562	5.63	8561997.90	8136290.00	-4.9721
Aroclor 1254	4	Averaged	6.113	6.079	6.147	5312874.15	5292702.00	-0.3797
Aroclor 1254	5	Averaged	6.385	6.353	6.421	7321092.90	7046954.00	-3.7445
Decachlorobiphenyl (S)		Averaged	8.657	8.623	8.691	133190612.	122835240.	-7.7749
Tetrachloro-m-xylene		Averaged	2.549	2.515	2.583	120441301.	114613060.	-4.8391

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

05/14/2018 3:05

Sequence Name: C:\msdchem\1\sequence\030618.s
Comment:
Operator: BLM
Data Path: C:\MSDCHEM\1\DATA\030618\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

ICAL

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info
1) Unlinked		
2) RearSamp	1	prime
Datafile		030618001
Method		GEBIOTA2017
3) Sample	2	prime
Datafile		030618002
Method		GEBIOTA2017
4) RearSamp	3	HEXANE
Datafile		030618003
Method		GEBIOTA2017
5) Sample	4	HEXANE
Datafile		030618004
Method		GEBIOTA2017
6) RearSamp	5	1232-CAL3S,185539:1,17499,NSA
Datafile		030618005
Method		GEBIOTA2017
7) Sample	4	HEXANE
Datafile		030618006
Method		GEBIOTA2017
8) RearSamp	6	1221-CAL1F,188138:1,17499,NSA
Datafile		030618007
Method		GEBIOTA2017
9) Sample	5	1232-CAL3S,185539:1,17498,NSA
Datafile		030618008
Method		GEBIOTA2017
10) RearSamp	7	1221-CAL2F,188139:1,17499,NSA
Datafile		030618009
Method		GEBIOTA2017
11) Sample	6	1221-CAL1F,188138:1,17498,NSA
Datafile		030618010
Method		GEBIOTA2017
12) RearSamp	8	1221-CAL3F,185538:1,17499,NSA
Datafile		030618011
Method		GEBIOTA2017
13) Sample	7	1221-CAL2F,188139:1,17498,NSA
Datafile		030618012
Method		GEBIOTA2017
14) RearSamp	9	1221-CAL4F,188140:1,17499,NSA
Datafile		030618013
Method		GEBIOTA2017
15) Sample	8	1221-CAL3F,185538:1,17498,NSA
Datafile		030618014
Method		GEBIOTA2017
16) RearSamp	10	1221-CAL5F,188141:1,17499,NSA
Datafile		030618015
Method		GEBIOTA2017
17) Sample	9	1221-CAL4F,188140:1,17498,NSA
Datafile		030618016
Method		GEBIOTA2017
18) RearSamp	11	HEXANE
Datafile		030618017
Method		GEBIOTA2017
19) Sample	10	1221-CAL5F,188141:1,17498,NSA
Datafile		030618018
Method		GEBIOTA2017
20) RearSamp	12	1242-CAL1B,188132:1,17499,NSA

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Datafile		030618019
Method		GEBIOTA2017
21) Sample	11	HEXANE
Datafile		030618020
Method		GEBIOTA2017
22) RearSamp	13	1242-CAL2B,185543:1,17499,NSA
Datafile		030618021
Method		GEBIOTA2017
23) Sample	12	1242-CAL1B,188132:1,17498,NSA
Datafile		030618022
Method		GEBIOTA2017
24) RearSamp	14	1242-CAL3B,185544:1,17499,NSA
Datafile		030618023
Method		GEBIOTA2017
25) Sample	13	1242-CAL2B,185543:1,17498,NSA
Datafile		030618024
Method		GEBIOTA2017
26) RearSamp	15	1242-CAL4B,185545:1,17499,NSA
Datafile		030618025
Method		GEBIOTA2017
27) Sample	14	1242-CAL3B,185544:1,17498,NSA
Datafile		030618026
Method		GEBIOTA2017
28) RearSamp	16	1242-CAL5B,185546:1,17499,NSA
Datafile		030618027
Method		GEBIOTA2017
29) Sample	15	1242-CAL4B,185545:1,17498,NSA
Datafile		030618028
Method		GEBIOTA2017
30) RearSamp	17	HEXANE
Datafile		030618029
Method		GEBIOTA2017
31) Sample	16	1242-CAL5B,185546:1,17498,NSA
Datafile		030618030
Method		GEBIOTA2017
32) RearSamp	18	1248-CAL1D,188134:1,17499,NSA
Datafile		030618031
Method		GEBIOTA2017
33) Sample	17	HEXANE
Datafile		030618032
Method		GEBIOTA2017
34) RearSamp	19	1248-CAL2D,185548:1,17499,NSA
Datafile		030618033
Method		GEBIOTA2017
35) Sample	18	1248-CAL1D,188134:1,17498,NSA
Datafile		030618034
Method		GEBIOTA2017
36) RearSamp	20	1248-CAL3D,185549:1,17499,NSA
Datafile		030618035
Method		GEBIOTA2017
37) Sample	19	1248-CAL2D,185548:1,17498,NSA
Datafile		030618036
Method		GEBIOTA2017
38) RearSamp	21	1248-CAL4D,185550:1,17499,NSA
Datafile		030618037
Method		GEBIOTA2017
39) Sample	20	1248-CAL3D,185549:1,17498,NSA
Datafile		030618038
Method		GEBIOTA2017
40) RearSamp	22	1248-CAL5D,185551:1,17499,NSA
Datafile		030618039
Method		GEBIOTA2017
41) Sample	21	1248-CAL4D,185550:1,17498,NSA
Datafile		030618040
Method		GEBIOTA2017
42) RearSamp	23	HEXANE
Datafile		030618041
Method		GEBIOTA2017
43) Sample	22	1248-CAL5D,185551:1,17498,NSA
Datafile		030618042
Method		GEBIOTA2017

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Sequence Name: C:\msdchem\1\sequence\030618.s

	Line	Type	Vial	DataFile	Method	Sample Name
44)		RearSamp	24	1254-CAL1C,188135:1,17499,NSA		
	Datafile			030618043		
	Method				GEBIOTA2017	
45)		Sample	23	HEXANE		
	Datafile			030618044		
	Method				GEBIOTA2017	
46)		RearSamp	25	1254-CAL2C,185553:1,17499,NSA		
	Datafile			030618045		
	Method				GEBIOTA2017	
47)		Sample	24	1254-CAL1C,188135:1,17498,NSA		
	Datafile			030618046		
	Method				GEBIOTA2017	
48)		RearSamp	26	1254-CAL3C,185554:1,17499,NSA		
	Datafile			030618047		
	Method				GEBIOTA2017	
49)		Sample	25	1254-CAL2C,185553:1,17498,NSA		
	Datafile			030618048		
	Method				GEBIOTA2017	
50)		RearSamp	27	1254-CAL4C,185555:1,17499,NSA		
	Datafile			030618049		
	Method				GEBIOTA2017	
51)		Sample	26	1254-CAL3C,185554:1,17498,NSA		
	Datafile			030618050		
	Method				GEBIOTA2017	
52)		RearSamp	28	1254-CAL5C,185556:1,17499,NSA		
	Datafile			030618051		
	Method				GEBIOTA2017	
53)		Sample	27	1254-CAL4C,185555:1,17498,NSA		
	Datafile			030618052		
	Method				GEBIOTA2017	
54)		RearSamp	29	HEXANE		
	Datafile			030618053		
	Method				GEBIOTA2017	
55)		Sample	28	1254-CAL5C,185556:1,17498,NSA		
	Datafile			030618054		
	Method				GEBIOTA2017	
56)		RearSamp	30	1660-CAL1A,188136:1,17499,AR1		
	Datafile			030618055		
	Method				GEBIOTA2017	
57)		Sample	29	HEXANE		
	Datafile			030618056		
	Method				GEBIOTA2017	
58)		RearSamp	31	1660-CAL2A,185558:1,17499,AR1		
	Datafile			030618057		
	Method				GEBIOTA2017	
59)		Sample	30	1660-CAL1A,188136:1,17498,AR1		
	Datafile			030618058		
	Method				GEBIOTA2017	
60)		RearSamp	32	1660-CAL3A,185559:1,17499,AR1		
	Datafile			030618059		
	Method				GEBIOTA2017	
61)		Sample	31	1660-CAL2A,185558:1,17498,AR1		
	Datafile			030618060		
	Method				GEBIOTA2017	
62)		RearSamp	33	1660-CAL4A,185560:1,17499,AR1		
	Datafile			030618061		
	Method				GEBIOTA2017	
63)		Sample	32	1660-CAL3A,185559:1,17498,AR1		
	Datafile			030618062		
	Method				GEBIOTA2017	
64)		RearSamp	34	1660-CAL5A,185561:1,17499,AR1		
	Datafile			030618063		
	Method				GEBIOTA2017	
65)		Sample	33	1660-CAL4A,185560:1,17498,AR1		
	Datafile			030618064		
	Method				GEBIOTA2017	
66)		RearSamp	35	HEXANE		
	Datafile			030618065		

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	Method		GEBIOTA2017
67)	Sample	34	1660-CAL5A,185561:1,17498,AR1
	Datafile		030618066
	Method		GEBIOTA2017
68)	RearSamp	36	1221-ICV,188142:1,17499,AR122
	Datafile		030618067
	Method		GEBIOTA2017
69)	Sample	35	HEXANE
	Datafile		030618068
	Method		GEBIOTA2017
70)	RearSamp	37	1242-ICV,185562:1,17499,AR124 OK
	Datafile		030618069
	Method		GEBIOTA2017
71)	Sample	36	1221-ICV,188142:1,17498,AR122 OK
	Datafile		030618070
	Method		GEBIOTA2017
72)	RearSamp	38	1248-ICV,185563:1,17499,AR124 OK
	Datafile		030618071
	Method		GEBIOTA2017
73)	Sample	37	1242-ICV,185562:1,17498,AR124 OK
	Datafile		030618072
	Method		GEBIOTA2017
74)	RearSamp	39	1254-ICV,185564:1,17499,AR125 OK
	Datafile		030618073
	Method		GEBIOTA2017
75)	Sample	38	1248-ICV,185563:1,17498,AR124 OK
	Datafile		030618074
	Method		GEBIOTA2017
76)	RearSamp	40	1660-ICV,185565:1,17499,AR166 OK
	Datafile		030618075
	Method		GEBIOTA2017
77)	Sample	39	1254-ICV,185564:1,17498,AR125 OK
	Datafile		030618076
	Method		GEBIOTA2017
78)	RearSamp	41	1221-CRDL,188138:1,17499,RL12 OK
	Datafile		030618077
	Method		GEBIOTA2017
79)	Sample	40	1660-ICV,185565:1,17498,AR166 OK
	Datafile		030618078
	Method		GEBIOTA2017
80)	RearSamp	42	1242-CRDL,188132:1,17499,RL12 OK
	Datafile		030618079
	Method		GEBIOTA2017
81)	Sample	41	1221-CRDL,188138:1,17498,RL12 OK
	Datafile		030618080
	Method		GEBIOTA2017
82)	RearSamp	43	1248-CRDL,188134:1,17499,RL12 OK
	Datafile		030618081
	Method		GEBIOTA2017
83)	Sample	42	1242-CRDL,188132:1,17498,RL12 OK
	Datafile		030618082
	Method		GEBIOTA2017
84)	RearSamp	44	1254-CRDL,188135:1,17499,RL12 OK
	Datafile		030618083
	Method		GEBIOTA2017
85)	Sample	43	1248-CRDL,188134:1,17498,RL12 OK
	Datafile		030618084
	Method		GEBIOTA2017
86)	RearSamp	45	1660-CRDL,188136:1,17499,RL16 OK
	Datafile		030618085
	Method		GEBIOTA2017
87)	Sample	44	1254-CRDL,188135:1,17498,RL12 OK
	Datafile		030618086
	Method		GEBIOTA2017
88)	RearSamp	46	HEXANE
	Datafile		030618087
	Method		GEBIOTA2017
89)	Sample	45	1660-CRDL,188136:1,17498,RL16 OK
	Datafile		030618088
	Method		GEBIOTA2017

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Read and Understood By

Signed 3/7/18 Date

Signed 3/7/18 Date

Sequence Name: C:\msdchem\1\sequence\050318.s
Comment:
Operator: BLM
Data Path: C:\MSDCHEM\1\DATA\050318\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

ICAL

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info
1) Unlinked		
2) RearSamp	1	prime
Datafile		050318001
Method		GEBIOTA2017
3) Sample	2	prime
Datafile		050318002
Method		GEBIOTA2017
4) RearSamp	3	HEXANE
Datafile		050318003
Method		GEBIOTA2017
5) Sample	4	HEXANE
Datafile		050318004
Method		GEBIOTA2017
6) RearSamp	5	HEXANE
Datafile		050318005
Method		GEBIOTA2017
7) Sample	6	HEXANE
Datafile		050318006
Method		GEBIOTA2017
8) RearSamp	7	1232-CAL3S,185539:1,17762,NSA
Datafile		050318007
Method		GEBIOTA2017
9) Sample	8	1232-CAL3S,185539:1,17761,NSA
Datafile		050318008
Method		GEBIOTA2017
10) RearSamp	9	1221-CAL1F,188138:1,17762,NSA
Datafile		050318009
Method		GEBIOTA2017
11) Sample	10	1221-CAL1F,188138:1,17761,NSA
Datafile		050318010
Method		GEBIOTA2017
12) RearSamp	11	1221-CAL2F,188139:1,17762,NSA
Datafile		050318011
Method		GEBIOTA2017
13) Sample	12	1221-CAL2F,188139:1,17761,NSA
Datafile		050318012
Method		GEBIOTA2017
14) RearSamp	13	1221-CAL3F,185538:1,17762,NSA
Datafile		050318013
Method		GEBIOTA2017
15) Sample	14	1221-CAL3F,185538:1,17761,NSA
Datafile		050318014
Method		GEBIOTA2017
16) RearSamp	15	1221-CAL4F,188140:1,17762,NSA
Datafile		050318015
Method		GEBIOTA2017
17) Sample	16	1221-CAL4F,188140:1,17761,NSA
Datafile		050318016
Method		GEBIOTA2017
18) RearSamp	17	1221-CAL5F,188141:1,17762,NSA
Datafile		050318017
Method		GEBIOTA2017
19) Sample	18	1221-CAL5F,188141:1,17761,NSA
Datafile		050318018
Method		GEBIOTA2017
20) RearSamp	19	HEXANE

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Datafile		050318019
Method		GEBIOTA2017
21) Sample	20	HEXANE
Datafile		050318020
Method		GEBIOTA2017
22) RearSamp	21	1242-CAL1B,188132:1,17762,NSA
Datafile		050318021
Method		GEBIOTA2017
23) Sample	22	1242-CAL1B,188132:1,17761,NSA
Datafile		050318022
Method		GEBIOTA2017
24) RearSamp	23	1242-CAL2B,185543:1,17762,NSA
Datafile		050318023
Method		GEBIOTA2017
25) Sample	24	1242-CAL2B,185543:1,17761,NSA
Datafile		050318024
Method		GEBIOTA2017
26) RearSamp	25	1242-CAL3B,185544:1,17762,NSA
Datafile		050318025
Method		GEBIOTA2017
27) Sample	26	1242-CAL3B,185544:1,17761,NSA
Datafile		050318026
Method		GEBIOTA2017
28) RearSamp	27	1242-CAL4B,185545:1,17762,NSA
Datafile		050318027
Method		GEBIOTA2017
29) Sample	28	1242-CAL4B,185545:1,17761,NSA
Datafile		050318028
Method		GEBIOTA2017
30) RearSamp	29	1242-CAL5B,185546:1,17762,NSA
Datafile		050318029
Method		GEBIOTA2017
31) Sample	30	1242-CAL5B,185546:1,17761,NSA
Datafile		050318030
Method		GEBIOTA2017
32) RearSamp	31	HEXANE
Datafile		050318031
Method		GEBIOTA2017
33) Sample	32	HEXANE
Datafile		050318032
Method		GEBIOTA2017
34) RearSamp	33	1248-CAL1D,188134:1,17762,NSA
Datafile		050318033
Method		GEBIOTA2017
35) Sample	34	1248-CAL1D,188134:1,17761,NSA
Datafile		050318034
Method		GEBIOTA2017
36) RearSamp	35	1248-CAL2D,185548:1,17762,NSA
Datafile		050318035
Method		GEBIOTA2017
37) Sample	36	1248-CAL2D,185548:1,17761,NSA
Datafile		050318036
Method		GEBIOTA2017
38) RearSamp	37	1248-CAL3D,185549:1,17762,NSA
Datafile		050318037
Method		GEBIOTA2017
39) Sample	38	1248-CAL3D,185549:1,17761,NSA
Datafile		050318038
Method		GEBIOTA2017
40) RearSamp	39	1248-CAL4D,185550:1,17762,NSA
Datafile		050318039
Method		GEBIOTA2017
41) Sample	40	1248-CAL4D,185550:1,17761,NSA
Datafile		050318040
Method		GEBIOTA2017
42) RearSamp	41	1248-CAL5D,185551:1,17762,NSA
Datafile		050318041
Method		GEBIOTA2017
43) Sample	42	1248-CAL5D,185551:1,17761,NSA
Datafile		050318042
Method		GEBIOTA2017

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Sequence Name: C:\msdchem\1\sequence\050318.s

	Line Type	Vial	DataFile	Method	Sample Name
44)	RearSamp	43	HEXANE		
	Datafile		050318043		
	Method			GEBIOTA2017	
45)	Sample	44	HEXANE		
	Datafile		050318044		
	Method			GEBIOTA2017	
46)	RearSamp	45	1254-CAL1C,188135:1,17762,NSA		
	Datafile		050318045		
	Method			GEBIOTA2017	
47)	Sample	46	1254-CAL1C,188135:1,17761,NSA		
	Datafile		050318046		
	Method			GEBIOTA2017	
48)	RearSamp	47	1254-CAL2C,185553:1,17762,NSA		
	Datafile		050318047		
	Method			GEBIOTA2017	
49)	Sample	48	1254-CAL2C,185553:1,17761,NSA		
	Datafile		050318048		
	Method			GEBIOTA2017	
50)	RearSamp	49	1254-CAL3C,185554:1,17762,NSA		
	Datafile		050318049		
	Method			GEBIOTA2017	
51)	Sample	50	1254-CAL3C,185554:1,17761,NSA		
	Datafile		050318050		
	Method			GEBIOTA2017	
52)	RearSamp	51	1254-CAL4C,185555:1,17762,NSA		
	Datafile		050318051		
	Method			GEBIOTA2017	
53)	Sample	52	1254-CAL4C,185555:1,17761,NSA		
	Datafile		050318052		
	Method			GEBIOTA2017	
54)	RearSamp	53	1254-CAL5C,185556:1,17762,NSA		
	Datafile		050318053		
	Method			GEBIOTA2017	
55)	Sample	54	1254-CAL5C,185556:1,17761,NSA		
	Datafile		050318054		
	Method			GEBIOTA2017	
56)	RearSamp	55	HEXANE		
	Datafile		050318055		
	Method			GEBIOTA2017	
57)	Sample	56	HEXANE		
	Datafile		050318056		
	Method			GEBIOTA2017	
58)	RearSamp	57	1660-CAL1A,188136:1,17762,AR1		
	Datafile		050318057		
	Method			GEBIOTA2017	
59)	Sample	58	1660-CAL1A,188136:1,17761,AR1		
	Datafile		050318058		
	Method			GEBIOTA2017	
60)	RearSamp	59	1660-CAL2A,185558:1,17762,AR1		
	Datafile		050318059		
	Method			GEBIOTA2017	
61)	Sample	60	1660-CAL2A,185558:1,17761,AR1		
	Datafile		050318060		
	Method			GEBIOTA2017	
62)	RearSamp	61	1660-CAL3A,185559:1,17762,AR1		
	Datafile		050318061		
	Method			GEBIOTA2017	
63)	Sample	62	1660-CAL3A,185559:1,17761,AR1		
	Datafile		050318062		
	Method			GEBIOTA2017	
64)	RearSamp	63	1660-CAL4A,185560:1,17762,AR1		
	Datafile		050318063		
	Method			GEBIOTA2017	
65)	Sample	64	1660-CAL4A,185560:1,17761,AR1		
	Datafile		050318064		
	Method			GEBIOTA2017	
66)	RearSamp	65	1660-CAL5A,185561:1,17762,AR1		
	Datafile		050318065		

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	Method		GEBIOTA2017
67)	Sample	66	1660-CAL5A,185561:1,17761,AR1
	Datafile		050318066
	Method		GEBIOTA2017
68)	RearSamp	67	HEXANE
	Datafile		050318067
	Method		GEBIOTA2017
69)	Sample	68	HEXANE
	Datafile		050318068
	Method		GEBIOTA2017
70)	RearSamp	69	1221-ICV,188142:1,17762,AR122 ok
	Datafile		050318069
	Method		GEBIOTA2017
71)	Sample	70	1221-ICV,188142:1,17761,AR122 ok
	Datafile		050318070
	Method		GEBIOTA2017
72)	RearSamp	71	1242-ICV,185562:1,17762,AR124 ok
	Datafile		050318071
	Method		GEBIOTA2017
73)	Sample	72	1242-ICV,185562:1,17761,AR124 ok
	Datafile		050318072
	Method		GEBIOTA2017
74)	RearSamp	73	1248-ICV,185563:1,17762,AR124 ok
	Datafile		050318073
	Method		GEBIOTA2017
75)	Sample	74	1248-ICV,185563:1,17761,AR124 ok
	Datafile		050318074
	Method		GEBIOTA2017
76)	RearSamp	75	1254-ICV,185564:1,17762,AR125 ok
	Datafile		050318075
	Method		GEBIOTA2017
77)	Sample	76	1254-ICV,185564:1,17761,AR125 F
	Datafile		050318076
	Method		GEBIOTA2017
78)	RearSamp	77	1660-ICV,185565:1,17762,AR166 ok
	Datafile		050318077
	Method		GEBIOTA2017
79)	Sample	78	1660-ICV,185565:1,17761,AR166 F
	Datafile		050318078
	Method		GEBIOTA2017
80)	RearSamp	79	1679886,,17744,BIOTA
	Datafile		050318079
	Method		GEBIOTA2017
81)	Sample	80	1681428,,17750,BIOTA
	Datafile		050318080
	Method		GEBIOTA2017
82)	RearSamp	81	1679887,,17744,BIOTA
	Datafile		050318081
	Method		GEBIOTA2017
83)	Sample	82	1681429,,17750,BIOTA
	Datafile		050318082
	Method		GEBIOTA2017
84)	RearSamp	83	40158013001 x2,,17744,BIOTA
	Datafile		050318083
	Method		GEBIOTA2017
85)	Sample	84	40157940015 x20,,17750,BIOTA
	Datafile		050318084
	Method		GEBIOTA2017
86)	RearSamp	85	40158013002 x5,,17744,BIOTA
	Datafile		050318085
	Method		GEBIOTA2017
87)	Sample	86	1681430 x20,,17750,BIOTA
	Datafile		050318086
	Method		GEBIOTA2017
88)	RearSamp	87	40158013003 x5,,17744,BIOTA
	Datafile		050318087
	Method		GEBIOTA2017
89)	Sample	88	1681911 x20,,17750,BIOTA
	Datafile		050318088
	Method		GEBIOTA2017
90)	RearSamp	89	40158013004 x5,,17744,BIOTA
	Datafile		050318089

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```
      Method              GEBIOTA2017
91)  Sample        90    40157948008 x2,,17750,BIOTA
      Datafile            050318090
      Method              GEBIOTA2017
92)  RearSamp      91    40158013005,,17744,BIOTA
      Datafile            050318091
      Method              GEBIOTA2017
93)  Sample        92    40157948009 x2,,17750,BIOTA
      Datafile            050318092
      Method              GEBIOTA2017
94)  RearSamp      93    40158028001 x6,,17744,BIOTA
      Datafile            050318093
      Method              GEBIOTA2017
95)  Sample        94    40157948011 x10,,17750,BIOTA
      Datafile            050318094
      Method              GEBIOTA2017
96)  RearSamp      95    40158028002 x5,,17744,BIOTA
      Datafile            050318095
      Method              GEBIOTA2017
```

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Sequence Name: C:\msdchem\1\sequence\050318.s

	Line Type	Vial	DataFile	Method	Sample Name
97)	Sample	96	1681432 x10,,17750,BIOTA		
	Datafile		050318096		
	Method			GEBIOTA2017	
98)	RearSamp	97	40158028003 x4,,17744,BIOTA		
	Datafile		050318097		
	Method			GEBIOTA2017	
99)	Sample	98	40157948014 x5,,17750,BIOTA		
	Datafile		050318098		
	Method			GEBIOTA2017	
100)	RearSamp	99	1221-CCV,185538:1,17762,AR122		OK
	Datafile		050318099		
	Method			GEBIOTA2017	
101)	Sample	100	1221-CCV,185538:1,17761,AR122		
	Datafile		050318100		
	Method			GEBIOTA2017	
102)	RearSamp	1	1221-CCV,185538:1,17762,AR122		OK
	Datafile		050318101		
	Method			GEBIOTA2017	
103)	Sample	2	1221-CCV,185538:1,17761,AR122		
	Datafile		050318102		
	Method			GEBIOTA2017	
104)	RearSamp	3	40158028004 x10,,17744,BIOTA		
	Datafile		050318103		
	Method			GEBIOTA2017	
105)	Sample	4	40158017001 x3,,17750,BIOTA		
	Datafile		050318104		
	Method			GEBIOTA2017	
106)	RearSamp	5	40158028005 x10,,17744,BIOTA		
	Datafile		050318105		
	Method			GEBIOTA2017	
107)	Sample	6	40158017002 x3,,17750,BIOTA		
	Datafile		050318106		
	Method			GEBIOTA2017	
108)	RearSamp	7	40158028006 x6,,17744,BIOTA		
	Datafile		050318107		
	Method			GEBIOTA2017	
109)	Sample	8	40158017016,,17750,BIOTA		
	Datafile		050318108		
	Method			GEBIOTA2017	
110)	RearSamp	9	40158028007 x5,,17744,BIOTA		
	Datafile		050318109		
	Method			GEBIOTA2017	
111)	Sample	10	40158017017,,17750,BIOTA		
	Datafile		050318110		
	Method			GEBIOTA2017	
112)	RearSamp	11	40158028008 x5,,17744,BIOTA		
	Datafile		050318111		
	Method			GEBIOTA2017	
113)	Sample	12	40158017018,,17750,BIOTA		
	Datafile		050318112		
	Method			GEBIOTA2017	
114)	RearSamp	13	40158028009 x5,,17744,BIOTA		
	Datafile		050318113		
	Method			GEBIOTA2017	
115)	Sample	14	40158017019,,17750,BIOTA		
	Datafile		050318114		
	Method			GEBIOTA2017	
116)	RearSamp	15	40158028010 x5,,17744,BIOTA		
	Datafile		050318115		
	Method			GEBIOTA2017	
117)	Sample	16	40158017020,,17750,BIOTA		
	Datafile		050318116		
	Method			GEBIOTA2017	
118)	RearSamp	17	40158028011 x4,,17744,BIOTA		
	Datafile		050318117		
	Method			GEBIOTA2017	
119)	Sample	18	1681433,,17750,BIOTA		
	Datafile		050318118		

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	Method		GEBIOTA2017
120)	RearSamp	19	40158028012 x5,,17744,BIOTA
	Datafile		050318119
	Method		GEBIOTA2017
121)	Sample	20	40158029002 x4,,17750,BIOTA
	Datafile		050318120
	Method		GEBIOTA2017
122)	RearSamp	21	40158028013 x5,,17744,BIOTA
	Datafile		050318121
	Method		GEBIOTA2017
123)	Sample	22	40158029004 x5,,17750,BIOTA
	Datafile		050318122
	Method		GEBIOTA2017
124)	RearSamp	23	1232-CCV,185539:1,17762,AR123 ok
	Datafile		050318123
	Method		GEBIOTA2017
125)	Sample	24	1232-CCV,185539:1,17761,AR123
	Datafile		050318124
	Method		GEBIOTA2017
126)	RearSamp	25	1232-CCV,185539:1,17762,AR123 ok
	Datafile		050318125
	Method		GEBIOTA2017
127)	Sample	26	1232-CCV,185539:1,17761,AR123
	Datafile		050318126
	Method		GEBIOTA2017
128)	RearSamp	27	40158028014 x4,,17744,BIOTA
	Datafile		050318127
	Method		GEBIOTA2017
129)	Sample	28	1681434 x5,,17750,BIOTA
	Datafile		050318128
	Method		GEBIOTA2017
130)	RearSamp	29	40158028015 x3,,17744,BIOTA
	Datafile		050318129
	Method		GEBIOTA2017
131)	Sample	30	HEXANE
	Datafile		050318130
	Method		GEBIOTA2017
132)	RearSamp	31	1679888 x4,,17744,BIOTA
	Datafile		050318131
	Method		GEBIOTA2017
133)	Sample	32	HEXANE
	Datafile		050318132
	Method		GEBIOTA2017
134)	RearSamp	33	1679889 x3,,17744,BIOTA
	Datafile		050318133
	Method		GEBIOTA2017
135)	Sample	34	HEXANE
	Datafile		050318134
	Method		GEBIOTA2017
136)	RearSamp	35	1242-CCV,185544:1,17762,AR124 ok
	Datafile		050318135
	Method		GEBIOTA2017
137)	Sample	36	1242-CCV,185544:1,17761,AR124
	Datafile		050318136
	Method		GEBIOTA2017
138)	RearSamp	37	1242-CCV,185544:1,17762,AR124 ok
	Datafile		050318137
	Method		GEBIOTA2017
139)	Sample	38	1242-CCV,185544:1,17761,AR124
	Datafile		050318138
	Method		GEBIOTA2017

* ICVs for 40GCSJ did not meet criteria, this column run will not be used.

** GCSV Batch 17744 was screened 40GCSI 04/30/18 BLM 5/17/18

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Read and Understood By

Signed 5/7/18 Date

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Sequence Name: C:\msdchem\1\sequence\042518.s
Comment:
Operator:
Data Path: C:\MSDCHEM\1\DATA\042518\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

GE BIOTA

Line		Sample Name/Misc Info
1) RearSamp	1	HEXANE
Datafile		---
Method		SCREEN2014
2) Sample	2	HEXANE
Datafile		---
Method		SCREEN2014
3) RearSamp	3	1677643MB
Datafile		---
Method		SCREEN2014
4) Sample	4	1677644LCS
Datafile		---
Method		SCREEN2014
5) RearSamp	5	40157940-001 x3
Datafile		---
Method		SCREEN2014
6) Sample	6	40157940-002 x100
Datafile		---
Method		SCREEN2014
7) RearSamp	7	40157940-003 x100
Datafile		---
Method		SCREEN2014
8) Sample	8	40157940-004 x50
Datafile		---
Method		SCREEN2014
9) RearSamp	9	40157940-005 x100
Datafile		---
Method		SCREEN2014
10) Sample	10	40157940-006 x3
Datafile		---
Method		SCREEN2014
11) RearSamp	11	40157940-007 x2
Datafile		---
Method		SCREEN2014
12) Sample	12	40157940-008 x20
Datafile		---
Method		SCREEN2014
13) RearSamp	13	40157940-009 x15
Datafile		---
Method		SCREEN2014
14) Sample	14	40157940-010 x10
Datafile		---
Method		SCREEN2014
15) RearSamp	15	40157940-011 x10
Datafile		---
Method		SCREEN2014
16) Sample	16	40157940-012 x30
Datafile		---
Method		SCREEN2014
17) RearSamp	17	40157940-013 x50
Datafile		---
Method		SCREEN2014
18) Sample	18	40157940-014 x50
Datafile		---
Method		SCREEN2014
19) RearSamp	19	40157940-016 x20
Datafile		---

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Signed — Date 4/26/18

	Method		SCREEN2014
20)	Sample	20	40157940-017 ×20
	Datafile		--------
	Method		SCREEN2014
21)	RearSamp	21	40157940-018 ×5
	Datafile		--------
	Method		SCREEN2014
22)	Sample	22	40157940-019 ×30
	Datafile		--------
	Method		SCREEN2014
23)	RearSamp	23	40157940-020 × 4
	Datafile		--------
	Method		SCREEN2014
24)	Sample	24	40158013-010P × 10
	Datafile		-------- BLM 4/26/18
	Method		SCREEN2014
25)	RearSamp	25	1677645MS ~~×5~~ ×10
	Datafile		--------
	Method		SCREEN2014
26)	Sample	26	1677646DUP ×10
	Datafile		--------
	Method		SCREEN2014

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Signed — 4/26/18 Date

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```
    Sequence Name: C:\msdchem\1\sequence\050118.s
          Comment:
         Operator:
        Data Path: C:\MSDCHEM\1\DATA\050118\
Instrument Control  Pre-Seq Cmd:
Data Analysis       Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis      Post-Seq Cmd:

    Method Sections To Run        Sequence Barcode Options
    (X) Full Method               (X) On Mismatch, Inject Anyway
    ( ) Reprocessing Only         ( ) On Mismatch, Don't Inject
                                  ( ) Barcode Disabled
```

Line		Sample Name/Misc Info
1) RearSamp	1	HEXANE
Datafile		--------
Method		SCREEN2014
2) Sample	2	HEXANE
Datafile		--------
Method		SCREEN2014
3) RearSamp	3	1681428MB
Datafile		--------
Method		SCREEN2014
4) Sample	4	1681429LCS
Datafile		--------
Method		SCREEN2014
5) RearSamp	5	40157940-015 x20
Datafile		--------
Method		SCREEN2014
6) Sample	6	1681430MS x20
Datafile		--------
Method		SCREEN2014
7) RearSamp	7	1681911DUP x 20
Datafile		--------
Method		SCREEN2014
8) Sample	8	40157948-008 x 2
Datafile		--------
Method		SCREEN2014
9) RearSamp	9	40157948-009 x 2
Datafile		--------
Method		SCREEN2014
10) Sample	10	40157948-011 x10
Datafile		--------
Method		SCREEN2014
11) RearSamp	11	1681432DUP x10
Datafile		--------
Method		SCREEN2014
12) Sample	12	40157948-014 x 5
Datafile		--------
Method		SCREEN2014
13) RearSamp	13	40158017-001 x 3
Datafile		--------
Method		SCREEN2014
14) Sample	14	40158017-002 x 3
Datafile		--------
Method		SCREEN2014
15) RearSamp	15	40158017-016 —
Datafile		--------
Method		SCREEN2014
16) Sample	16	40158017-017 —
Datafile		--------
Method		SCREEN2014
17) RearSamp	17	40158017-018 —
Datafile		--------
Method		SCREEN2014
18) Sample	18	40158017-019 —
Datafile		--------
Method		SCREEN2014
19) RearSamp	19	40158017-020 —
Datafile		--------

GE BIOTA

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Signed [signature] Date 5/10/18

Signed [signature] Date 5-10-18

Sequence Name: C:\msdchem\1\sequence\042518.s
Comment:
Operator: BLM
Data Path: C:\MSDCHEM\1\DATA\042518\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info	
1)	Sample	1	prime
	Datafile		042518001
	Method		GEBIOTA2017
2)	Sample	2	HEXANE
	Datafile		042518002
	Method		GEBIOTA2017
3)	Sample	3	HEXANE
	Datafile		042518003
	Method		GEBIOTA2017
4)	Sample	4	1248-CCV,185549:1,17498,AR124 ok
	Datafile		042518004
	Method		GEBIOTA2017
5)	Sample	5	1248-CCV,185549:1,17498,AR124 ok
	Datafile		042518005
	Method		GEBIOTA2017
6)	Sample	6	40158010001 x6,,17723,BIOTA
	Datafile		042518006
	Method		GEBIOTA2017
7)	Sample	7	1677643,,17730,BIOTA B
	Datafile		042518007
	Method		GEBIOTA2017
8)	Sample	8	1677644,,17730,BIOTA LLS
	Datafile		042518008
	Method		GEBIOTA2017
9)	Sample	9	40157940001 x3,,17730,BIOTA
	Datafile		042518009
	Method		GEBIOTA2017
10)	Sample	10	40157940002 x100,,17730,BIOTA
	Datafile		042518010
	Method		GEBIOTA2017
11)	Sample	11	40157940003 x100,,17730,BIOTA
	Datafile		042518011
	Method		GEBIOTA2017
12)	Sample	12	40157940004 x50,,17730,BIOTA
	Datafile		042518012
	Method		GEBIOTA2017
13)	Sample	13	40157940005 x100,,17730,BIOTA RS
	Datafile		042518013
	Method		GEBIOTA2017
14)	Sample	14	40157940006 x3,,17730,BIOTA
	Datafile		042518014
	Method		GEBIOTA2017
15)	Sample	15	40157940007 x2,,17730,BIOTA
	Datafile		042518015
	Method		GEBIOTA2017
16)	Sample	16	1254-CCV,185554:1,17498,AR125 ok
	Datafile		042518016
	Method		GEBIOTA2017
17)	Sample	17	1254-CCV,185554:1,17498,AR125 ok
	Datafile		042518017
	Method		GEBIOTA2017
18)	Sample	18	40157940008 x20,,17730,BIOTA
	Datafile		042518018
	Method		GEBIOTA2017
19)	Sample	19	40157940009 x15,,17730,BIOTA
	Datafile		042518019

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```
      Method              GEBIOTA2017
20)  Sample        20     40157940010 x10,,17730,BIOTA
      Datafile            042518020
      Method              GEBIOTA2017
21)  Sample        21     40157940011 x10,,17730,BIOTA
      Datafile            042518021
      Method              GEBIOTA2017
22)  Sample        22     40157940012 x30,,17730,BIOTA
      Datafile            042518022
      Method              GEBIOTA2017
23)  Sample        23     40157940013 x50,,17730,BIOTA   RR
      Datafile            042518023
      Method              GEBIOTA2017
24)  Sample        24     40157940014 x50,,17730,BIOTA
      Datafile            042518024
      Method              GEBIOTA2017
25)  Sample        25     40157940016 x20,,17730,BIOTA
      Datafile            042518025
      Method              GEBIOTA2017
26)  Sample        26     40157940017 x20,,17730,BIOTA
      Datafile            042518026
      Method              GEBIOTA2017
27)  Sample        27     40157940018 x5,,17730,BIOTA
      Datafile            042518027
      Method              GEBIOTA2017
28)  Sample        28     1660-CCV,185559:1,17498,AR166 OK
      Datafile            042518028
      Method              GEBIOTA2017
29)  Sample        29     1660-CCV,185559:1,17498,AR166 OK
      Datafile            042518029
      Method              GEBIOTA2017
30)  Sample        30     40157940019 x30,,17730,BIOTA
      Datafile            042518030
      Method              GEBIOTA2017
31)  Sample        31     40157940020 x4,,17730,BIOTA
      Datafile            042518031
      Method              GEBIOTA2017
32)  Sample        32     40158013010 x10,,17730,BIOTA
      Datafile            042518032
      Method              GEBIOTA2017
33)  Sample        33     1677645 x10,,17730,BIOTA
      Datafile            042518033
      Method              GEBIOTA2017
34)  Sample        34     1677646 x10,,17730,BIOTA
      Datafile            042518034
      Method              GEBIOTA2017
35)  Sample        35     1221-CCV,185538:1,17498,AR122 OK
      Datafile            042518035
      Method              GEBIOTA2017
36)  Sample        36     1221-CCV,185538:1,17498,AR122 OK
      Datafile            042518036
      Method              GEBIOTA2017
```

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Read and Understood By

Signed	Date	Signed	Date
[signature]	4/26/18	[signature]	4/26/18

```
    Sequence Name: C:\msdchem\1\sequence\042618.s
          Comment:
         Operator: BLM
        Data Path: C:\MSDCHEM\1\DATA\042618\
Instrument Control  Pre-Seq Cmd:
Data Analysis       Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis      Post-Seq Cmd:

    Method Sections To Run        Sequence Barcode Options
    (X) Full Method               (X) On Mismatch, Inject Anyway
    ( ) Reprocessing Only         ( ) On Mismatch, Don't Inject
                                  ( ) Barcode Disabled
```

Line		Sample Name/Misc Info
1) Sample	1	prime
Datafile		042618001
Method		GEBIOTA2017
2) Sample	2	HEXANE
Datafile		042618002
Method		GEBIOTA2017
3) Sample	3	HEXANE
Datafile		042618003
Method		GEBIOTA2017
4) Sample	4	1232-CCV,185539:1,17498,AR123 OK
Datafile		042618004
Method		GEBIOTA2017
5) Sample	5	1232-CCV,185539:1,17498,AR123 OK
Datafile		042618005
Method		GEBIOTA2017
6) Sample	6	40157940005 x200,,17730,BIOTA
Datafile		042618006
Method		GEBIOTA2017
7) Sample	7	1678089,,17733,BIOTA
Datafile		042618007
Method		GEBIOTA2017
8) Sample	8	1678090,,17733,BIOTA
Datafile		042618008
Method		GEBIOTA2017
9) Sample	9	40158023001 x10,,17733,BIOTA
Datafile		042618009
Method		GEBIOTA2017
10) Sample	10	40158023002 x15,,17733,BIOTA
Datafile		042618010
Method		GEBIOTA2017
11) Sample	11	40158023003 x10,,17733,BIOTA
Datafile		042618011
Method		GEBIOTA2017
12) Sample	12	40158023004 x15,,17733,BIOTA
Datafile		042618012
Method		GEBIOTA2017
13) Sample	13	40158023005 x10,,17733,BIOTA
Datafile		042618013
Method		GEBIOTA2017
14) Sample	14	40158023006 x15,,17733,BIOTA
Datafile		042618014
Method		GEBIOTA2017
15) Sample	15	40158023007 x10,,17733,BIOTA
Datafile		042618015
Method		GEBIOTA2017
16) Sample	16	1242-CCV,185544:1,17498,AR124 OK
Datafile		042618016
Method		GEBIOTA2017
17) Sample	17	1242-CCV,185544:1,17498,AR124 OK
Datafile		042618017
Method		GEBIOTA2017
18) Sample	18	40158023008 x10,,17733,BIOTA
Datafile		042618018
Method		GEBIOTA2017
19) Sample	19	40158023009 x5,,17733,BIOTA RS
Datafile		042618019

```
    Last Modified: Thu Apr 26 12:35:53 2018
```

Page: 1

BLM 4/27/18

Continued on Page 70

Read and Understood By

Signed — Date: 4/27/18

Signed — Date: 4-27-18

Sequence Name: C:\msdchem\1\sequence\042718.s
Comment:
Operator: BLM
Data Path: C:\MSDCHEM\1\DATA\042718\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line		Sample Name/Misc Info
1) Sample	1	prime
Datafile		042718001
Method		GEBIOTA2017
2) Sample	2	HEXANE
Datafile		042718002
Method		GEBIOTA2017
3) Sample	3	HEXANE
Datafile		042718003
Method		GEBIOTA2017
4) Sample	4	1660-CCV,185559:1,17498,AR166 F
Datafile		042718004
Method		GEBIOTA2017
5) Sample	5	1660-CCV,185559:1,17498,AR166 OK
Datafile		042718005
Method		GEBIOTA2017
6) Sample	6	40157940013 x30,,17730,BIOTA
Datafile		042718006
Method		GEBIOTA2017
7) Sample	7	40158023009 x7,,17733,BIOTA
Datafile		042718007
Method		GEBIOTA2017
8) Sample	8	40158023013 x10,,17733,BIOTA
Datafile		042718008
Method		GEBIOTA2017
9) Sample	9	40158023014 x6,,17733,BIOTA
Datafile		042718009
Method		GEBIOTA2017
10) Sample	10	1679050,,17738,BIOTA
Datafile		042718010
Method		GEBIOTA2017
11) Sample	11	1679051,,17738,BIOTA
Datafile		042718011
Method		GEBIOTA2017
12) Sample	12	40158025001,,17738,BIOTA
Datafile		042718012
Method		GEBIOTA2017
13) Sample	13	40158025002 x2,,17738,BIOTA
Datafile		042718013
Method		GEBIOTA2017
14) Sample	14	1221-CCV,185538:1,17498,AR122 OK
Datafile		042718014
Method		GEBIOTA2017
15) Sample	15	40158025003,,17738,BIOTA RS
Datafile		042718015
Method		GEBIOTA2017
16) Sample	16	40158025004,,17738,BIOTA RS
Datafile		042718016
Method		GEBIOTA2017
17) Sample	17	40158025005 x2,,17738,BIOTA
Datafile		042718017
Method		GEBIOTA2017
18) Sample	18	40158025006 x2,,17738,BIOTA
Datafile		042718018
Method		GEBIOTA2017
19) Sample	19	40158025007,,17738,BIOTA RS
Datafile		042718019

Last Modified: Fri Apr 27 13:14:35 2018 Page: 1

BLM 4/30/18

Continued on Page 72

Read and Understood By

Signed 4/30/18 Date

Signed 4/30/18 Date

```
    Sequence Name: C:\msdchem\1\sequence\050718.s
          Comment:
         Operator: BLM
        Data Path: C:\MSDCHEM\1\DATA\050718\
Instrument Control  Pre-Seq Cmd:
Data Analysis       Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis      Post-Seq Cmd:

    Method Sections To Run       Sequence Barcode Options
    (X) Full Method              (X) On Mismatch, Inject Anyway
    ( ) Reprocessing Only        ( ) On Mismatch, Don't Inject
                                 ( ) Barcode Disabled
```

Line		Sample Name/Misc Info	
1)	Sample	1 PRIME	
	Datafile	050718001	
	Method	GEBIOTA2017	
2)	Sample	2 HEXANE	
	Datafile	050718002	
	Method	GEBIOTA2017	
3)	Sample	3 HEXANE	
	Datafile	050718003	
	Method	GEBIOTA2017	
4)	Sample	4 1248-CCV,185549:1,17762,AR124	OK
	Datafile	050718004	
	Method	GEBIOTA2017	
5)	Sample	5 1248-CCV,185549:1,17762,AR124	OK
	Datafile	050718005	
	Method	GEBIOTA2017	
6)	Sample	6 1681428,,17750,BIOTA	B
	Datafile	050718006	
	Method	GEBIOTA2017	
7)	Sample	7 1681429,,17750,BIOTA	LCS
	Datafile	050718007	
	Method	GEBIOTA2017	
8)	Sample	8 40157940015 x20,,17750,BIOTA	
	Datafile	050718008	
	Method	GEBIOTA2017	
9)	Sample	9 1681430 x20,,17750,BIOTA	MS
	Datafile	050718009	
	Method	GEBIOTA2017	
10)	Sample	10 1681911 x20,,17750,BIOTA	DUP
	Datafile	050718010	
	Method	GEBIOTA2017	
11)	Sample	11 40157948008 x2,,17750,BIOTA	
	Datafile	050718011	
	Method	GEBIOTA2017	
12)	Sample	12 40157948009 x2,,17750,BIOTA	
	Datafile	050718012	
	Method	GEBIOTA2017	
13)	Sample	13 40157948011 x10,,17750,BIOTA	
	Datafile	050718013	
	Method	GEBIOTA2017	
14)	Sample	14 1681432 x10,,17750,BIOTA	
	Datafile	050718014	
	Method	GEBIOTA2017	
15)	Sample	15 40157948014 x5,,17750,BIOTA	
	Datafile	050718015	
	Method	GEBIOTA2017	
16)	Sample	16 1254-CCV,185554:1,17762,AR125	OK
	Datafile	050718016	
	Method	GEBIOTA2017	
17)	Sample	17 1254-CCV,185554:1,17762,AR125	OK
	Datafile	050718017	
	Method	GEBIOTA2017	
18)	Sample	18 40158017001 x3,,17750,BIOTA	DS
	Datafile	050718018	
	Method	GEBIOTA2017	
19)	Sample	19 40158017002 x3,,17750,BIOTA	
	Datafile	050718019	

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Last Modified: Mon May 07 12:20:59 2018
```

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BLM 5/10/18

Continued on Page 87

Read and Understood By

Signed 5/10/18 Date

Signed 5-10-18 Date

Pace Analytical Prep Log Report

40157940

Batch Information: OEXT 286769 PCB-B

Template Version: F-GB-O-113-Rev.05 (22Mar2018)

Prep Method	EPA 3541	Analysis Method	EPA 8082A Mod	Extracted By	ETB	Extracted Date/Time	04/24/2018 07:41:00:500
Spiked By	ETB	Spiked By Date/Time	04/24/2018 07:41:03:682	Witnessed By	AMC	Witnessed By Date/Time	04/24/2018 07:41:03:682
Instrument	40BALL	Conc. Temp #1	40	Conc. Temp #2	40	Methylene Chloride	None Added
Hexane/Acetone 1:1	194588	Hexane	192551	Sodium Sulfate	194085	Florisil	186910
3620B Date/Initials	04/25/18 ETB	H2SO4 - Conc.	179362	Acid 3665A Date/Initials	04/25/18 ETB	Tuna	None Added
Reviewed By	BLM	Reviewed By Date	04/27/2018 07:35	Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Volume Delivered (mL)	Sample Notes	8081-SS (mL)	AR1242-SPK (mL)
8082A TNYP	BLANK	**1677643**	10	5	3		193230 (.25)	
8082A TNYP	LCS	**1677644**	10	5	3		193230 (.25)	192096 (.125)
8082A TNYP	PS	**40157940001**	10.0188	5	3		193230 (.25)	
8082A TNYP	PS	**40157940002**	9.9797	5	3		193230 (.25)	
8082A TNYP	PS	**40157940003**	10.0286	5	3		193230 (.25)	
8082A TNYP	PS	**40157940004**	8.0409	5	3		193230 (.25)	
8082A TNYP	PS	**40157940005**	9.9876	5	3		193230 (.25)	
8082A TNYP	PS	**40157940006**	9.9653	5	3		193230 (.25)	
8082A TNYP	PS	**40157940007**	9.7076	5	3		193230 (.25)	
8082A TNYP	PS	**40157940008**	7.2184	5	3		193230 (.25)	
8082A TNYP	PS	**40157940009**	7.2222	5	3		193230 (.25)	
8082A TNYP	PS	**40157940010**	9.9632	5	3		193230 (.25)	
8082A TNYP	PS	**40157940011**	5.5479	5	3		193230 (.25)	
8082A TNYP	PS	**40157940012**	9.9742	5	3		193230 (.25)	
8082A TNYP	PS	**40157940013**	9.0096	5	3		193230 (.25)	
8082A TNYP	PS	**40157940014**	10.0106	5	3		193230 (.25)	

Clear

Mon, 14 May 2018 15:04:57 -0500

Pace Analytical® Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Volume Delivered (mL)	Sample Notes	8081-SS (mL)	AR1242-SPK (mL)
8082A TNYP	PS	**40157940016**	9.9908	5	3		193230 (.25)	
8082A TNYP	PS	**40157940017**	10.0261	5	3		193230 (.25)	
8082A TNYP	PS	**40157940018**	10.0128	5	3		193230 (.25)	
8082A TNYP	PS	**40157940019**	10.0081	5	3		193230 (.25)	
8082A TNYP	PS	**40157940020**	9.9998	5	3		193230 (.25)	
8082A TNYP	RQS	**40158013010**	5.5162	5	3		193230 (.25)	
8082A TNYP	MS	**1677645**	8.1647	5	3		193230 (.25)	192096 (.125)
8082A TNYP	DUP	**1677646**	8.8754	5	3		193230 (.25)	

Standard Notes:

192096: Ar1242 Spike @20ug/mL 40GCS9. **193230: Pest/PCB Surrogate Spike 40GCSC.**

Pace Analytical® Prep Log Report

40157940

Batch Information: OEXT 287324 PCB-B

Template Version: F-GB-O-113-Rev.05 (22Mar2018)

Prep Method	EPA 3541	Analysis Method	EPA 8082A Mod	Extracted By	ETB	Extracted Date/Time	04/30/2018 10:28:43:480
Spiked By	ETB	Spiked By Date/Time	04/30/2018 10:28:43:480	Witnessed By	AMC	Witnessed By Date/Time	04/30/2018 10:28:43:480
Instrument	40BALL	Conc. Temp #1	40	Conc. Temp #2	40	Methylene Chloride	None Added
Hexane/Acetone 1:1	195058	Hexane	192551	Sodium Sulfate	194642	Florisil	186910
3620B Date/Initials	05/01/18 ETB	H2SO4 - Conc.	179362	Acid 3665A Date/Initials	05/01/18 ETB	Tuna	None Added
Reviewed By	BLM	Reviewed By Date	05/10/2018 14:00	Batch Notes			

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Volume Delivered (mL)	Sample Notes	8081-SS (mL)	AR1242-SPK (mL)
8082A TNYP	BLANK	**1681428**	10	5	3		193230 (.25)	
8082A TNYP	LCS	**1681429**	10	5	3		193230 (.25)	192096 (.125)
8082A TNYP	RQS	**40157940015**	9.9936	5	3		193230 (.25)	
8082A TNYP	DUP	**1681911**	9.9851	5	3		193230 (.25)	
8082A TNYP	MS	**1681430**	9.9846	5	3		193230 (.25)	192096 (.125)
8082A TNYP	PS	**40157948008**	10.0142	5	3		193230 (.25)	
8082A TNYP	PS	**40157948009**	10.0164	5	3		193230 (.25)	
8082A TNYP	RQS	**40157948011**	10.0294	5	3		193230 (.25)	
8082A TNYP	DUP	**1681432**	10.0332	5	3		193230 (.25)	
8082A TNYP	PS	**40157948014**	10.0131	5	3		193230 (.25)	
8082A TNYP	PS	**40158017001**	9.9702	5	3		193230 (.25)	
8082A TNYP	PS	**40158017002**	9.9957	5	3		193230 (.25)	
8082A TNYP	PS	**40158017016**	9.9898	5	3		193230 (.25)	
8082A TNYP	PS	**40158017017**	10.0147	5	3		193230 (.25)	
8082A TNYP	PS	**40158017018**	10.0284	5	3		193230 (.25)	
8082A TNYP	PS	**40158017019**	10.0003	5	3		193230 (.25)	

Pace Analytical™ Prep Log Report

40157940

QC Rule	Sample Type	Lab Sample ID	Initial Weight (g)	Final Volume (mL)	Volume Delivered (mL)	Sample Notes	8081-SS (mL)	AR1242-SPK (mL)
8082A TNYP	RQS	**40158017020**	10.002	5	3		193230 (.25)	
8082A TNYP	DUP	**1681433**	10.0261	5	3		193230 (.25)	
8082A TNYP	PS	**40158029002**	9.985	5	3		193230 (.25)	
8082A TNYP	RQS	**40158029004**	10.0264	5	3		193230 (.25)	
8082A TNYP	DUP	**1681434**	10.0092	5	3		193230 (.25)	

Standard Notes:

192096: Ar1242 Spike @20ug/mL 40GCS9. **193230: Pest/PCB Surrogate Spike 40GCSC.**

SAMPLE NO.

TD5-170828-01-PKSD-02

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	2.1		%	1	04/25/2018 08:49

SAMPLE NO.

TD3-170828-01-PKSD-05

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	3.6		%	1	04/25/2018 08:49

SAMPLE NO.

TD3-170828-01-PKSD-04

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	3.2		%	1	04/25/2018 08:49

SAMPLE NO.

TD3-170828-01-PKSD-03

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	2.2		%	1	04/25/2018 08:49

SAMPLE NO.

TD3-170828-01-PKSD-02

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940005 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	3.4		%	1	04/25/2018 08:50

SAMPLE NO.

TD2-170828-01-PKSD-02

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940006 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	2.7		%	1	04/25/2018 08:50

SAMPLE NO.

TD2-170828-01-PKSD-01

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940007 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	2.2		%	1	04/25/2018 08:50

SAMPLE NO.

TD1-170828-01-PKSD-05

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940008 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	3.9		%	1	04/25/2018 08:50

SAMPLE NO.

TD1-170828-01-PKSD-04

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940009 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	3.7		%	1	04/25/2018 08:50

SAMPLE NO.

TD1-170828-01-PKSD-03

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940010 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	3.0		%	1	04/25/2018 08:50

SAMPLE NO.

TD1-170828-01-PKSD-02

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940011 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	3.4		%	1	04/25/2018 08:51

SAMPLE NO.

ND2-170828-01-PKSD-04

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940012 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	3.6		%	1	04/25/2018 08:51

SAMPLE NO.

ND2-170828-01-PKSD-03

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940013 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	4.0		%	1	04/25/2018 08:51

SAMPLE NO.

ND2-170828-01-PKSD-02

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940014 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	3.1		%	1	04/25/2018 08:51

SAMPLE NO.

ND2-170828-01-GOSH-02

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940015 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	3.7		%	1	04/30/2018 14:40

SAMPLE NO.

ND1-170828-01-PKSD-06

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940016 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	3.3		%	1	04/25/2018 08:52

SAMPLE NO.

ND1-170828-01-PKSD-05

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940017 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	4.6		%	1	04/25/2018 08:52

SAMPLE NO.

ND1-170828-01-PKSD-03

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940018 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	2.9		%	1	04/25/2018 08:52

SAMPLE NO.

ND1-170828-01-PKSD-02

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940019 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	3.7		%	1	04/25/2018 08:52

SAMPLE NO.

ND1-170828-01-PKSD-01

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Lab Sample ID: 40157940020 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
	Lipid	2.0		%	1	04/25/2018 08:52

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract : HUDSON RIVER REMEDIAL ACTION M

Method Blank Matrix: Tissue Instrument ID: 40BALL

Method Blank Concentration Units: %

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1678322	C
Lipid									<0.030	U

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract : HUDSON RIVER REMEDIAL ACTION M

Method Blank Matrix: Tissue Instrument ID: 40BALL

Method Blank Concentration Units: %

Analyte	Initial Calibration Blank		Continuing Calibration Blank						Method Blank	
		C		C		C		C	1681739	C
Lipid									<0.030	U

SAMPLE NO.

1678325DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Matrix: Tissue Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Lipid	40	4.0	2.3	53*

Mon SDG Parent

* RPD outside QC Limits

SAMPLE NO.

1681741DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Matrix: Tissue Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Lipid	40	3.7 ✓	3.7 ✓	1

✓

SAMPLE NO.

1681743DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Matrix: Tissue Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Lipid	40	2.7	2.8	6

SAMPLE NO.

1681744DUP

FORM VI INORGANIC-3
DUPLICATES

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Matrix: Tissue Concentration Units: %

Percent Moisture: _____ Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Lipid	40	2.9	2.6	9

SAMPLE NO.

1681745DUP

FORM VI INORGANIC-4
DUPLICATES

Lab Name: Pace Analytical - Green Bay SDG No. : 40157940 Contract: HUDSON RIVER REMEDIAL

Matrix: Tissue Concentration Units: %

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Lipid	40	3.5	3.7	4

Pace Analytical™ Prep Log Report

Batch Information: OEXT 286925 LIPIDS

Template Version: F-GB-O-145-Rev.01 (22Mar2018) LIPID

Analysis Method	Pace Lipid	Analyzed By	ETB	Instrument	40BALL	Batch Notes	
Reviewed By	BLM	Reviewed By Date	05/03/2018 12:21				

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Lipid % Posted	Run Date/Time	ID	Sample Weight (g)	Sample Volume (mL)	Aliquot (mL)	Dish Weight (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
LIPID	BLANK	**1678322**	Y	0.02000	04/25/2018 08:49:01		10	5	1	0.9293	0.9297	M	1677643
LIPID	BLANK	**1678323**	Y	0.01000	04/25/2018 08:49:10		10	5	1	0.9298	0.93	M	1677644
LIPID	PS	**40157940001**	Y	2.051	04/25/2018 08:49:20		10.0188	5	1	0.9293	0.9704	M	
LIPID	PS	**40157940002**	Y	3.612	04/25/2018 08:49:30		9.9797	5	1	0.9307	1.0028	M	
LIPID	PS	**40157940003**	Y	3.161	04/25/2018 08:49:43		10.0286	5	1	0.9304	0.9938	M	
LIPID	PS	**40157940004**	Y	2.220	04/25/2018 08:49:52		8.0409	5	1	0.9306	0.9663	M	
LIPID	PS	**40157940005**	Y	3.389	04/25/2018 08:50:03		9.9876	5	1	0.928	0.9957	M	
LIPID	PS	**40157940006**	Y	2.704	04/25/2018 08:50:17		9.9653	5	1	0.929	0.9829	M	
LIPID	PS	**40157940007**	Y	2.240	04/25/2018 08:50:28		9.7076	5	1	0.9285	0.972	M	
LIPID	PS	**40157940008**	Y	3.865	04/25/2018 08:50:39		7.2184	5	1	0.9292	0.985	M	
LIPID	PS	**40157940009**	Y	3.732	04/25/2018 08:50:49		7.2222	5	1	0.9253	0.9792	M	
LIPID	PS	**40157940010**	Y	2.961	04/25/2018 08:50:59		9.9632	5	1	0.9291	0.9881	M	
LIPID	PS	**40157940011**	Y	3.425	04/25/2018 08:51:13		5.5479	5	1	0.9293	0.9673	M	
LIPID	PS	**40157940012**	Y	3.584	04/25/2018 08:51:25		9.9742	5	1	0.9333	1.0048	M	
LIPID	PS	**40157940013**	Y	3.962	04/25/2018 08:51:37		9.0096	5	1	0.9284	0.9998	M	
LIPID	PS	**40157940014**	Y	3.097	04/25/2018 08:51:47		10.0106	5	1	0.9271	0.9891	M	
LIPID	PS	**40157940016**	Y	3.288	04/25/2018 08:52:01		9.9908	5	1	0.9315	0.9972	M	
LIPID	PS	**40157940017**	Y	4.578	04/25/2018 08:52:11		10.0261	5	1	0.9234	1.0152	M	
LIPID	PS	**40157940018**	Y	2.896	04/25/2018 08:52:21		10.0128	5	1	0.9269	0.9849	M	

Pace Analytical® Prep Log Report

40157940

QC Rule	Sample Type	Lab Sample ID	Select	Lipid % Posted	Run Date/Time	ID	Sample Weight (g)	Sample Volume (mL)	Aliquot (mL)	Dish Weight (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
LIPID	PS	**40157940019**	Y	3.717	04/25/2018 08:52:33		10.0081	5	1	0.9318	1.0062	M	
LIPID	PS	**40157940020**	Y	1.970	04/25/2018 08:52:44		9.9998	5	1	0.9308	0.9702	M	
LIPID	RQS	**40158013010**	Y	4.006	04/25/2018 08:52:54		5.5162	5	1	0.9208	0.965	M	
LIPID	DUP	**1678325**	Y	2.327	04/25/2018 08:53:15		8.8754	5	1	0.924	0.9653	M	1677646
LIPID	MS	**1683167**	Y	2.707	04/25/2018 08:53:15		8.1647	5	1	.9248	0.969	M	1677645

Non SDG Parent

For QC

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Mon, 14 May 2018 15:05:47 -0500

Pace Analytical® Prep Log Report

Batch Information: OEXT 287437 LIPIDS

Template Version: F-GB-O-145-Rev.01 (22Mar2018) LIPID

Analysis Method	Pace Lipid	Analyzed By	ETB	Instrument	40BALL	Batch Notes	
Reviewed By	BLM	Reviewed By Date	05/10/2018 14:40				

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Lipid % Posted	Run Date/Time	ID	Sample Weight (g)	Sample Volume (mL)	Aliquot (mL)	Dish Weight (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
LIPID	BLANK	**1681739**	Y	0.01000	04/30/2018 14:40:12		10	5	1	0.9371	0.9373	M	1681428
LIPID	BLANK	**1681740**	Y	0.01000	04/30/2018 14:40:22		10	5	1	0.9345	0.9347	M	1681429
LIPID	RQS	**40157940015**	Y	3.652	04/30/2018 14:40:33		9.9936	5	1	0.9321	1.0051	M	
LIPID	DUP	**1681741**	Y	3.691	04/30/2018 14:40:48		9.9851	5	1	0.9318	1.0055	M	1681911
LIPID	PS	**40157948008**	Y	3.121	04/30/2018 14:41:14		10.0142	5	1	0.9354	0.9979	M	
LIPID	PS	**40157948009**	Y	4.607	04/30/2018 14:41:25		10.0164	5	1	0.9347	1.027	M	
LIPID	RQS	**40157948011**	Y	2.652	04/30/2018 14:41:37		10.0294	5	1	0.9372	0.9904	M	
LIPID	DUP	**1681743**	Y	2.816	04/30/2018 14:41:50		10.0332	5	1	0.9330	0.9895	M	1681432
LIPID	PS	**40157948014**	Y	2.497	04/30/2018 14:42:01		10.0131	5	1	0.9370	0.987	M	
LIPID	PS	**40158017001**	Y	3.726	04/30/2018 14:42:10		9.9702	5	1	0.9370	1.0113	M	
LIPID	PS	**40158017002**	Y	1.841	04/30/2018 14:42:31		9.9957	5	1	0.9381	0.9749	M	
LIPID	PS	**40158017016**	Y	2.903	04/30/2018 14:42:40		9.9898	5	1	0.9378	0.9958	M	
LIPID	PS	**40158017017**	Y	2.646	04/30/2018 14:42:51		10.0147	5	1	0.9332	0.9862	M	
LIPID	PS	**40158017018**	Y	1.935	04/30/2018 14:43:04		10.0284	5	1	0.9355	0.9743	M	
LIPID	PS	**40158017019**	Y	3.140	04/30/2018 14:43:20		10.0003	5	1	0.9400	1.0028	M	
LIPID	RQS	**40158017020**	Y	2.909	04/30/2018 14:43:32		10.002	5	1	0.9396	0.9978	M	
LIPID	DUP	**1681744**	Y	2.648	04/30/2018 14:43:43		10.0261	5	1	0.9384	0.9915	M	1681433
LIPID	PS	**40158029002**	Y	4.392	04/30/2018 14:43:54		9.985	5	1	0.9337	1.0214	M	
LIPID	RQS	**40158029004**	Y	3.531	04/30/2018 14:44:03		10.0264	5	1	0.9369	1.0077	M	

40157940

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Prep Log Report

40157940

QC Rule	Sample Type	Lab Sample ID	Select	Lipid % Posted	Run Date/Time	ID	Sample Weight (g)	Sample Volume (mL)	Aliquot (mL)	Dish Weight (g)	Dry Weight 1 (g)	Dry Wt Use 1	Sample Notes
LIPID	DUP	**1681745**	Y	3.682	04/30/2018 14:44:11		10.0092	5	1	0.9329	1.0066	M	1681434
LIPID	MS	**1688378**	Y	3.751	04/30/2018 14:44:11		9.9846	5	1	.9373	1.0122	M	1681430

Client Name: GE

Project #: 40157910

Sample Type: Fish

Date/Time Removed to Thaw: 04-16-18 04-17-18

Date/Time Prepped: 04-16-18 04-17-18

Prepped by: CWN + JL + RM

Location Thawed: 40FRG21 / (Room Temperature) (circle one)

40157940

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Biota Homogenization Log (NYDOH Method)

Pace Analytical

Logbook: 4413

Sample ID	A) Scales Removed B) Skin Removed (Note A or B Below)	Whole Body/Fillet (WB/F)	Picture of Fish/Weight Taken? (Y/N)	Total Fish Weight (g)	Internal Organs Intact (Y/N)	Gender (Optional) M/F/U[1]	Fillet Weight (g)	Left/Both Fillet[2]?	Picture of Fillet/Weight Taken? (Y/N)	Container Code[3]	Number of Containers Used	Picture of Jars/Weight Taken? (Y/N)	Weight of homogenized Sample (g)	Processing Type (C/G/R/RM)[4]	Sample Comments
1	N/A	WB	Y	25.4	Y	N/A	N/A	Left / Both	N/A	4AG	1	Y	23.4	C	
2				18.6				Left / Both			1	Y	17.4		
3				12.9				Left / Both			1	Y	11.9		
4				8.8				Left / Both			1	Y	8.2		
5				22.4				Left / Both			1	Y	20.7		
6				26.7				Left / Both			1	Y	24.6		
7				11.1				Left / Both			1	Y	10.3		
8				8.3				Left / Both			1	Y	7.7		
9				8.0				Left / Both			1	Y	7.5		
10				13.2				Left / Both			1	Y	12.2		
11				6.3				Left / Both			1	Y	5.8		
12				16.2				Left / Both			1	Y	14.9		
13				10.3				Left / Both			1	Y	9.6		
14				11.2				Left / Both			1	Y	13.1		
15				71.8				Left / Both			1	Y	68.6		
16				13.8				Left / Both			1	Y	12.9		
17				15.8				Left / Both			1	Y	15.1		
18				13.5				Left / Both			1	Y	12.6		
19				24.6				Left / Both			1	Y	22.7		
20	X	X	X	21.9	X	X	Y	Left / Both	X	X	1	Y	19.4	X	

(1) M = Male, F = Female, U = Undetermined

(2) If left fillet weight is under 40g, the right fillet in included in the sample weight.

CWN 04-17-18

(3) Note Container Type / Lot # using Codes Below:

Container Code	Container Size	Lot#
2CG	2 oz Clear Glass	
4AG	4 oz Amber Glass	G-7-243-01DB
9AG	9 oz Amber Glass	
32AG	32 oz Amber Glass	

(4) Processing Type Code Descriptions:

Code	Description of Code
C	Chopped
G	Grind
R	Robot coupe
RM	Robot coupe multiple batches

Reviewed By

4/27/18
Date

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: TD5-170828-01-PKSD-02 **Lab ID: 40157940001** Collected: 08/28/17 14:11 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<34.1**	ug/kg	150	34.1	3	04/24/18 07:41	04/25/18 15:29	12674-11-2	
PCB-1221 (Aroclor 1221)	**110J**	ug/kg	150	34.1	3	04/24/18 07:41	04/25/18 15:29	11104-28-2	
PCB-1232 (Aroclor 1232)	**<34.1**	ug/kg	150	34.1	3	04/24/18 07:41	04/25/18 15:29	11141-16-5	
PCB-1242 (Aroclor 1242)	**<34.1**	ug/kg	150	34.1	3	04/24/18 07:41	04/25/18 15:29	53469-21-9	
PCB-1248 (Aroclor 1248)	**984**	ug/kg	150	34.1	3	04/24/18 07:41	04/25/18 15:29	12672-29-6	
PCB-1254 (Aroclor 1254)	**571**	ug/kg	150	34.1	3	04/24/18 07:41	04/25/18 15:29	11097-69-1	
PCB-1260 (Aroclor 1260)	**77.5J**	ug/kg	150	34.1	3	04/24/18 07:41	04/25/18 15:29	11096-82-5	
PCB, Total	**1740**	ug/kg	150	34.1	3	04/24/18 07:41	04/25/18 15:29	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	99	%	60-140		3	04/24/18 07:41	04/25/18 15:29	877-09-8	
Decachlorobiphenyl (S)	106	%	60-140		3	04/24/18 07:41	04/25/18 15:29	2051-24-3	
Lipid	Analytical Method: Pace Lipid								
Lipid	**2.1**	%	0.030	0.030	1		04/25/18 08:49		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: TD3-170828-01-PKSD-05 **Lab ID: 40157940002** Collected: 08/28/17 15:10 Received: 10/04/17 14:05 Matrix: Tissue
Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<1140**	ug/kg	5010	1140	100	04/24/18 07:41	04/25/18 15:45	12674-11-2	
PCB-1221 (Aroclor 1221)	**<1140**	ug/kg	5010	1140	100	04/24/18 07:41	04/25/18 15:45	11104-28-2	
PCB-1232 (Aroclor 1232)	**<1140**	ug/kg	5010	1140	100	04/24/18 07:41	04/25/18 15:45	11141-16-5	
PCB-1242 (Aroclor 1242)	**<1140**	ug/kg	5010	1140	100	04/24/18 07:41	04/25/18 15:45	53469-21-9	
PCB-1248 (Aroclor 1248)	**20400**	ug/kg	5010	1140	100	04/24/18 07:41	04/25/18 15:45	12672-29-6	
PCB-1254 (Aroclor 1254)	**10400**	ug/kg	5010	1140	100	04/24/18 07:41	04/25/18 15:45	11097-69-1	
PCB-1260 (Aroclor 1260)	**<1140**	ug/kg	5010	1140	100	04/24/18 07:41	04/25/18 15:45	11096-82-5	
PCB, Total	**30800**	ug/kg	5010	1140	100	04/24/18 07:41	04/25/18 15:45	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	60-140		100	04/24/18 07:41	04/25/18 15:45	877-09-8	S4
Decachlorobiphenyl (S)	0	%	60-140		100	04/24/18 07:41	04/25/18 15:45	2051-24-3	S4
Lipid	Analytical Method: Pace Lipid								
Lipid	**3.6**	%	0.030	0.030	1		04/25/18 08:49		

Diluted out
DF 710
No Quad

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: TD3-170828-01-PKSD-04 **Lab ID: 40157940003** Collected: 08/28/17 15:09 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<1140**	ug/kg	4990	1140	100	04/24/18 07:41	04/25/18 16:01	12674-11-2	
PCB-1221 (Aroclor 1221)	**<1140**	ug/kg	4990	1140	100	04/24/18 07:41	04/25/18 16:01	11104-28-2	
PCB-1232 (Aroclor 1232)	**<1140**	ug/kg	4990	1140	100	04/24/18 07:41	04/25/18 16:01	11141-16-5	
PCB-1242 (Aroclor 1242)	**<1140**	ug/kg	4990	1140	100	04/24/18 07:41	04/25/18 16:01	53469-21-9	
PCB-1248 (Aroclor 1248)	**19900**	ug/kg	4990	1140	100	04/24/18 07:41	04/25/18 16:01	12672-29-6	
PCB-1254 (Aroclor 1254)	**10700**	ug/kg	4990	1140	100	04/24/18 07:41	04/25/18 16:01	11097-69-1	
PCB-1260 (Aroclor 1260)	**<1140**	ug/kg	4990	1140	100	04/24/18 07:41	04/25/18 16:01	11096-82-5	
PCB, Total	**30600**	ug/kg	4990	1140	100	04/24/18 07:41	04/25/18 16:01	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	60-140		100	04/24/18 07:41	04/25/18 16:01	877-09-8	S4
Decachlorobiphenyl (S)	0	%	60-140		100	04/24/18 07:41	04/25/18 16:01	2051-24-3	S4
Lipid	Analytical Method: Pace Lipid								
Lipid	**3.2**	%	0.030	0.030	1		04/25/18 08:49		

DF 100
Diluted out
No Quel

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: TD3-170828-01-PKSD-03 **Lab ID: 40157940004** Collected: 08/28/17 15:07 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<709**	ug/kg	3110	709	50	04/24/18 07:41	04/25/18 16:16	12674-11-2	
PCB-1221 (Aroclor 1221)	**<709**	ug/kg	3110	709	50	04/24/18 07:41	04/25/18 16:16	11104-28-2	
PCB-1232 (Aroclor 1232)	**<709**	ug/kg	3110	709	50	04/24/18 07:41	04/25/18 16:16	11141-16-5	
PCB-1242 (Aroclor 1242)	**<709**	ug/kg	3110	709	50	04/24/18 07:41	04/25/18 16:16	53469-21-9	
PCB-1248 (Aroclor 1248)	**10300**	ug/kg	3110	709	50	04/24/18 07:41	04/25/18 16:16	12672-29-6	
PCB-1254 (Aroclor 1254)	**7300**	ug/kg	3110	709	50	04/24/18 07:41	04/25/18 16:16	11097-69-1	
PCB-1260 (Aroclor 1260)	**814J**	ug/kg	3110	709	50	04/24/18 07:41	04/25/18 16:16	11096-82-5	
PCB, Total	**18400**	ug/kg	3110	709	50	04/24/18 07:41	04/25/18 16:16	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	60-140		50	04/24/18 07:41	04/25/18 16:16	877-09-8	S4
Decachlorobiphenyl (S)	0	%	60-140		50	04/24/18 07:41	04/25/18 16:16	2051-24-3	S4
Lipid	Analytical Method: Pace Lipid								
Lipid	**2.2**	%	0.030	0.030	1		04/25/18 08:49		

DF 710
Dilute Out
No Qual

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: TD3-170828-01-PKSD-02 **Lab ID: 40157940005** Collected: 08/28/17 15:05 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<2280**	ug/kg	10000	2280	200	04/24/18 07:41	04/26/18 13:56	12674-11-2	1q
PCB-1221 (Aroclor 1221)	**<2280**	ug/kg	10000	2280	200	04/24/18 07:41	04/26/18 13:56	11104-28-2	
PCB-1232 (Aroclor 1232)	**<2280**	ug/kg	10000	2280	200	04/24/18 07:41	04/26/18 13:56	11141-16-5	
PCB-1242 (Aroclor 1242)	**<2280**	ug/kg	10000	2280	200	04/24/18 07:41	04/26/18 13:56	53469-21-9	
PCB-1248 (Aroclor 1248)	**66500**	ug/kg	10000	2280	200	04/24/18 07:41	04/26/18 13:56	12672-29-6	
PCB-1254 (Aroclor 1254)	**26700**	ug/kg	10000	2280	200	04/24/18 07:41	04/26/18 13:56	11097-69-1	
PCB-1260 (Aroclor 1260)	**<2280**	ug/kg	10000	2280	200	04/24/18 07:41	04/26/18 13:56	11096-82-5	
PCB, Total	**93200**	ug/kg	10000	2280	200	04/24/18 07:41	04/26/18 13:56	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	60-140		200	04/24/18 07:41	04/26/18 13:56	877-09-8	S4
Decachlorobiphenyl (S)	0	%	60-140		200	04/24/18 07:41	04/26/18 13:56	2051-24-3	S4
Lipid	Analytical Method: Pace Lipid								
Lipid	**3.4**	%	0.030	0.030	1		04/25/18 08:50		

DF 710
Diluted out
No Quad

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: TD2-170828-01-PKSD-02 **Lab ID: 40157940006** Collected: 08/28/17 12:19 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<34.3**	ug/kg	151	34.3	3	04/24/18 07:41	04/25/18 16:48	12674-11-2	
PCB-1221 (Aroclor 1221)	**<34.3**	ug/kg	151	34.3	3	04/24/18 07:41	04/25/18 16:48	11104-28-2	
PCB-1232 (Aroclor 1232)	**<34.3**	ug/kg	151	34.3	3	04/24/18 07:41	04/25/18 16:48	11141-16-5	
PCB-1242 (Aroclor 1242)	**<34.3**	ug/kg	151	34.3	3	04/24/18 07:41	04/25/18 16:48	53469-21-9	
PCB-1248 (Aroclor 1248)	**740**	ug/kg	151	34.3	3	04/24/18 07:41	04/25/18 16:48	12672-29-6	
PCB-1254 (Aroclor 1254)	**395**	ug/kg	151	34.3	3	04/24/18 07:41	04/25/18 16:48	11097-69-1	
PCB-1260 (Aroclor 1260)	**49.3J**	ug/kg	151	34.3	3	04/24/18 07:41	04/25/18 16:48	11096-82-5	
PCB, Total	**1180**	ug/kg	151	34.3	3	04/24/18 07:41	04/25/18 16:48	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	90	%	60-140		3	04/24/18 07:41	04/25/18 16:48	877-09-8	
Decachlorobiphenyl (S)	100	%	60-140		3	04/24/18 07:41	04/25/18 16:48	2051-24-3	
Lipid	Analytical Method: Pace Lipid								
Lipid	**2.7**	%	0.030	0.030	1		04/25/18 08:50		

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: TD2-170828-01-PKSD-01 **Lab ID: 40157940007** Collected: 08/28/17 12:15 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<23.5**	ug/kg	103	23.5	2	04/24/18 07:41	04/25/18 17:04	12674-11-2	
PCB-1221 (Aroclor 1221)	**55.2J**	ug/kg	103	23.5	2	04/24/18 07:41	04/25/18 17:04	11104-28-2	
PCB-1232 (Aroclor 1232)	**<23.5**	ug/kg	103	23.5	2	04/24/18 07:41	04/25/18 17:04	11141-16-5	
PCB-1242 (Aroclor 1242)	**<23.5**	ug/kg	103	23.5	2	04/24/18 07:41	04/25/18 17:04	53469-21-9	
PCB-1248 (Aroclor 1248)	**490**	ug/kg	103	23.5	2	04/24/18 07:41	04/25/18 17:04	12672-29-6	
PCB-1254 (Aroclor 1254)	**282**	ug/kg	103	23.5	2	04/24/18 07:41	04/25/18 17:04	11097-69-1	
PCB-1260 (Aroclor 1260)	**41.5J**	ug/kg	103	23.5	2	04/24/18 07:41	04/25/18 17:04	11096-82-5	
PCB, Total	**868**	ug/kg	103	23.5	2	04/24/18 07:41	04/25/18 17:04	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	97	%	60-140		2	04/24/18 07:41	04/25/18 17:04	877-09-8	
Decachlorobiphenyl (S)	101	%	60-140		2	04/24/18 07:41	04/25/18 17:04	2051-24-3	
Lipid	Analytical Method: Pace Lipid								
Lipid	**2.2**	%	0.030	0.030	1		04/25/18 08:50		

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: TD1-170828-01-PKSD-05 **Lab ID: 40157940008** Collected: 08/28/17 12:00 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<316**	ug/kg	1390	316	20	04/24/18 07:41	04/25/18 17:52	12674-11-2	
PCB-1221 (Aroclor 1221)	**<316**	ug/kg	1390	316	20	04/24/18 07:41	04/25/18 17:52	11104-28-2	
PCB-1232 (Aroclor 1232)	**<316**	ug/kg	1390	316	20	04/24/18 07:41	04/25/18 17:52	11141-16-5	
PCB-1242 (Aroclor 1242)	**<316**	ug/kg	1390	316	20	04/24/18 07:41	04/25/18 17:52	53469-21-9	
PCB-1248 (Aroclor 1248)	**6660**	ug/kg	1390	316	20	04/24/18 07:41	04/25/18 17:52	12672-29-6	
PCB-1254 (Aroclor 1254)	**5530**	ug/kg	1390	316	20	04/24/18 07:41	04/25/18 17:52	11097-69-1	
PCB-1260 (Aroclor 1260)	**657J**	ug/kg	1390	316	20	04/24/18 07:41	04/25/18 17:52	11096-82-5	
PCB, Total	**12800**	ug/kg	1390	316	20	04/24/18 07:41	04/25/18 17:52	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	60-140		20	04/24/18 07:41	04/25/18 17:52	877-09-8	S4
Decachlorobiphenyl (S)	0	%	60-140		20	04/24/18 07:41	04/25/18 17:52	2051-24-3	S4
Lipid	Analytical Method: Pace Lipid								
Lipid	**3.9**	%	0.030	0.030	1		04/25/18 08:50		

DF 710
Diluted out
No Qual

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: TD1-170828-01-PKSD-04 **Lab ID: 40157940009** Collected: 08/28/17 11:58 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<237**	ug/kg	1040	237	15	04/24/18 07:41	04/25/18 18:08	12674-11-2	
PCB-1221 (Aroclor 1221)	**<237**	ug/kg	1040	237	15	04/24/18 07:41	04/25/18 18:08	11104-28-2	
PCB-1232 (Aroclor 1232)	**<237**	ug/kg	1040	237	15	04/24/18 07:41	04/25/18 18:08	11141-16-5	
PCB-1242 (Aroclor 1242)	**<237**	ug/kg	1040	237	15	04/24/18 07:41	04/25/18 18:08	53469-21-9	
PCB-1248 (Aroclor 1248)	**4080**	ug/kg	1040	237	15	04/24/18 07:41	04/25/18 18:08	12672-29-6	
PCB-1254 (Aroclor 1254)	**2880**	ug/kg	1040	237	15	04/24/18 07:41	04/25/18 18:08	11097-69-1	
PCB-1260 (Aroclor 1260)	**331J**	ug/kg	1040	237	15	04/24/18 07:41	04/25/18 18:08	11096-82-5	
PCB, Total	**7290**	ug/kg	1040	237	15	04/24/18 07:41	04/25/18 18:08	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	60-140		15	04/24/18 07:41	04/25/18 18:08	877-09-8	S4
Decachlorobiphenyl (S)	0	%	60-140		15	04/24/18 07:41	04/25/18 18:08	2051-24-3	S4
Lipid	Analytical Method: Pace Lipid								
Lipid	**3.7**	%	0.030	0.030	1		04/25/18 08:50		

DF 15
Diluted out
No Qual

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: TD1-170828-01-PKSD-03 **Lab ID: 40157940010** Collected: 08/28/17 11:56 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<114**	ug/kg	502	114	10	04/24/18 07:41	04/25/18 18:23	12674-11-2	
PCB-1221 (Aroclor 1221)	**<114**	ug/kg	502	114	10	04/24/18 07:41	04/25/18 18:23	11104-28-2	
PCB-1232 (Aroclor 1232)	**<114**	ug/kg	502	114	10	04/24/18 07:41	04/25/18 18:23	11141-16-5	
PCB-1242 (Aroclor 1242)	**<114**	ug/kg	502	114	10	04/24/18 07:41	04/25/18 18:23	53469-21-9	
PCB-1248 (Aroclor 1248)	**2120**	ug/kg	502	114	10	04/24/18 07:41	04/25/18 18:23	12672-29-6	
PCB-1254 (Aroclor 1254)	**1760**	ug/kg	502	114	10	04/24/18 07:41	04/25/18 18:23	11097-69-1	
PCB-1260 (Aroclor 1260)	**204J**	ug/kg	502	114	10	04/24/18 07:41	04/25/18 18:23	11096-82-5	
PCB, Total	**4080**	ug/kg	502	114	10	04/24/18 07:41	04/25/18 18:23	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	99	%	60-140		10	04/24/18 07:41	04/25/18 18:23	877-09-8	
Decachlorobiphenyl (S)	118	%	60-140		10	04/24/18 07:41	04/25/18 18:23	2051-24-3	
Lipid	Analytical Method: Pace Lipid								
Lipid	**3.0**	%	0.030	0.030	1		04/25/18 08:50		

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: TD1-170828-01-PKSD-02 **Lab ID: 40157940011** Collected: 08/28/17 11:53 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<205**	ug/kg	901	205	10	04/24/18 07:41	04/25/18 18:39	12674-11-2	
PCB-1221 (Aroclor 1221)	**<205**	ug/kg	901	205	10	04/24/18 07:41	04/25/18 18:39	11104-28-2	
PCB-1232 (Aroclor 1232)	**<205**	ug/kg	901	205	10	04/24/18 07:41	04/25/18 18:39	11141-16-5	
PCB-1242 (Aroclor 1242)	**<205**	ug/kg	901	205	10	04/24/18 07:41	04/25/18 18:39	53469-21-9	
PCB-1248 (Aroclor 1248)	**3850**	ug/kg	901	205	10	04/24/18 07:41	04/25/18 18:39	12672-29-6	
PCB-1254 (Aroclor 1254)	**2510**	ug/kg	901	205	10	04/24/18 07:41	04/25/18 18:39	11097-69-1	
PCB-1260 (Aroclor 1260)	**279J**	ug/kg	901	205	10	04/24/18 07:41	04/25/18 18:39	11096-82-5	
PCB, Total	**6640**	ug/kg	901	205	10	04/24/18 07:41	04/25/18 18:39	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	93	%	60-140		10	04/24/18 07:41	04/25/18 18:39	877-09-8	
Decachlorobiphenyl (S)	110	%	60-140		10	04/24/18 07:41	04/25/18 18:39	2051-24-3	
Lipid	Analytical Method: Pace Lipid								
Lipid	**3.4**	%	0.030	0.030	1		04/25/18 08:51		

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: ND2-170828-01-PKSD-04 **Lab ID: 40157940012** Collected: 08/28/17 17:51 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<343**	ug/kg	1500	343	30	04/24/18 07:41	04/25/18 18:55	12674-11-2	
PCB-1221 (Aroclor 1221)	**1600**	ug/kg	1500	343	30	04/24/18 07:41	04/25/18 18:55	11104-28-2	
PCB-1232 (Aroclor 1232)	**<343**	ug/kg	1500	343	30	04/24/18 07:41	04/25/18 18:55	11141-16-5	
PCB-1242 (Aroclor 1242)	**<343**	ug/kg	1500	343	30	04/24/18 07:41	04/25/18 18:55	53469-21-9	
PCB-1248 (Aroclor 1248)	**4750**	ug/kg	1500	343	30	04/24/18 07:41	04/25/18 18:55	12672-29-6	
PCB-1254 (Aroclor 1254)	**2340**	ug/kg	1500	343	30	04/24/18 07:41	04/25/18 18:55	11097-69-1	
PCB-1260 (Aroclor 1260)	**454J**	ug/kg	1500	343	30	04/24/18 07:41	04/25/18 18:55	11096-82-5	
PCB, Total	**9160**	ug/kg	1500	343	30	04/24/18 07:41	04/25/18 18:55	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	60-140		30	04/24/18 07:41	04/25/18 18:55	877-09-8	S4
Decachlorobiphenyl (S)	0	%	60-140		30	04/24/18 07:41	04/25/18 18:55	2051-24-3	S4
Lipid	Analytical Method: Pace Lipid								
Lipid	**3.6**	%	0.030	0.030	1		04/25/18 08:51		

F710
Diluted out
No Qual

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: ND2-170828-01-PKSD-03 **Lab ID: 40157940013** Collected: 08/28/17 17:50 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<380**	ug/kg	1660	380	30	04/24/18 07:41	04/27/18 09:36	12674-11-2	1q
PCB-1221 (Aroclor 1221)	**2560**	ug/kg	1660	380	30	04/24/18 07:41	04/27/18 09:36	11104-28-2	
PCB-1232 (Aroclor 1232)	**<380**	ug/kg	1660	380	30	04/24/18 07:41	04/27/18 09:36	11141-16-5	
PCB-1242 (Aroclor 1242)	**<380**	ug/kg	1660	380	30	04/24/18 07:41	04/27/18 09:36	53469-21-9	
PCB-1248 (Aroclor 1248)	**6250**	ug/kg	1660	380	30	04/24/18 07:41	04/27/18 09:36	12672-29-6	
PCB-1254 (Aroclor 1254)	**3300**	ug/kg	1660	380	30	04/24/18 07:41	04/27/18 09:36	11097-69-1	
PCB-1260 (Aroclor 1260)	**504J**	ug/kg	1660	380	30	04/24/18 07:41	04/27/18 09:36	11096-82-5	
PCB, Total	**12600**	ug/kg	1660	380	30	04/24/18 07:41	04/27/18 09:36	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	60-140		30	04/24/18 07:41	04/27/18 09:36	877-09-8	S4
Decachlorobiphenyl (S)	0	%	60-140		30	04/24/18 07:41	04/27/18 09:36	2051-24-3	S4
Lipid	Analytical Method: Pace Lipid								
Lipid	**4.0**	%	0.030	0.030	1		04/25/18 08:51		

DF 710
Diluted out
No Qual

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: ND2-170828-01-PKSD-02 **Lab ID: 40157940014** Collected: 08/28/17 17:48 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<569**	ug/kg	2500	569	50	04/24/18 07:41	04/25/18 19:27	12674-11-2	
PCB-1221 (Aroclor 1221)	**<569**	ug/kg	2500	569	50	04/24/18 07:41	04/25/18 19:27	11104-28-2	
PCB-1232 (Aroclor 1232)	**<569**	ug/kg	2500	569	50	04/24/18 07:41	04/25/18 19:27	11141-16-5	
PCB-1242 (Aroclor 1242)	**<569**	ug/kg	2500	569	50	04/24/18 07:41	04/25/18 19:27	53469-21-9	
PCB-1248 (Aroclor 1248)	**10200**	ug/kg	2500	569	50	04/24/18 07:41	04/25/18 19:27	12672-29-6	
PCB-1254 (Aroclor 1254)	**4950**	ug/kg	2500	569	50	04/24/18 07:41	04/25/18 19:27	11097-69-1	
PCB-1260 (Aroclor 1260)	**<569**	ug/kg	2500	569	50	04/24/18 07:41	04/25/18 19:27	11096-82-5	
PCB, Total	**15200**	ug/kg	2500	569	50	04/24/18 07:41	04/25/18 19:27	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	60-140		50	04/24/18 07:41	04/25/18 19:27	877-09-8	S4
Decachlorobiphenyl (S)	0	%	60-140		50	04/24/18 07:41	04/25/18 19:27	2051-24-3	S4
Lipid	Analytical Method: Pace Lipid								
Lipid	**3.1**	%	0.030	0.030	1		04/25/18 08:51		

D-710
Diluted out
No Qual

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: ND2-170828-01-GOSH-02 **Lab ID: 40157940015** Collected: 08/28/17 17:58 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<228**	ug/kg	1000	228	20	04/30/18 10:28	05/07/18 15:10	12674-11-2	
PCB-1221 (Aroclor 1221)	**996J**	ug/kg	1000	228	20	04/30/18 10:28	05/07/18 15:10	11104-28-2	
PCB-1232 (Aroclor 1232)	**<228**	ug/kg	1000	228	20	04/30/18 10:28	05/07/18 15:10	11141-16-5	
PCB-1242 (Aroclor 1242)	**<228**	ug/kg	1000	228	20	04/30/18 10:28	05/07/18 15:10	53469-21-9	M6
PCB-1248 (Aroclor 1248)	**2930**	ug/kg	1000	228	20	04/30/18 10:28	05/07/18 15:10	12672-29-6	
PCB-1254 (Aroclor 1254)	**1260**	ug/kg	1000	228	20	04/30/18 10:28	05/07/18 15:10	11097-69-1	
PCB-1260 (Aroclor 1260)	**288J**	ug/kg	1000	228	20	04/30/18 10:28	05/07/18 15:10	11096-82-5	
PCB, Total	**5470**	ug/kg	1000	228	20	04/30/18 10:28	05/07/18 15:10	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	60-140		20	04/30/18 10:28	05/07/18 15:10	877-09-8	S4
Decachlorobiphenyl (S)	0	%	60-140		20	04/30/18 10:28	05/07/18 15:10	2051-24-3	S4
Lipid	Analytical Method: Pace Lipid								
Lipid	**3.7**	%	0.030	0.030	1		04/30/18 14:40		

DF = 10
Diluted out
No Qual

REPORT OF LABORATORY ANALYSIS

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1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: ND1-170828-01-PKSD-06 **Lab ID: 40157940016** Collected: 08/28/17 17:41 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<228**	ug/kg	1000	228	20	04/24/18 07:41	04/25/18 19:43	12674-11-2	
PCB-1221 (Aroclor 1221)	**<228**	ug/kg	1000	228	20	04/24/18 07:41	04/25/18 19:43	11104-28-2	
PCB-1232 (Aroclor 1232)	**<228**	ug/kg	1000	228	20	04/24/18 07:41	04/25/18 19:43	11141-16-5	
PCB-1242 (Aroclor 1242)	**<228**	ug/kg	1000	228	20	04/24/18 07:41	04/25/18 19:43	53469-21-9	
PCB-1248 (Aroclor 1248)	**3920**	ug/kg	1000	228	20	04/24/18 07:41	04/25/18 19:43	12672-29-6	
PCB-1254 (Aroclor 1254)	**2120**	ug/kg	1000	228	20	04/24/18 07:41	04/25/18 19:43	11097-69-1	
PCB-1260 (Aroclor 1260)	**242J**	ug/kg	1000	228	20	04/24/18 07:41	04/25/18 19:43	11096-82-5	
PCB, Total	**6290**	ug/kg	1000	228	20	04/24/18 07:41	04/25/18 19:43	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	60-140		20	04/24/18 07:41	04/25/18 19:43	877-09-8	S4
Decachlorobiphenyl (S)	0	%	60-140		20	04/24/18 07:41	04/25/18 19:43	2051-24-3	S4
Lipid	Analytical Method: Pace Lipid								
Lipid	**3.3**	%	0.030	0.030	1		04/25/18 08:52		

DF 710
Diluted out
No Qual

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: ND1-170828-01-PKSD-05 **Lab ID: 40157940017** Collected: 08/28/17 17:40 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<227**	ug/kg	997	227	20	04/24/18 07:41	04/25/18 19:59	12674-11-2	
PCB-1221 (Aroclor 1221)	**<227**	ug/kg	997	227	20	04/24/18 07:41	04/25/18 19:59	11104-28-2	
PCB-1232 (Aroclor 1232)	**<227**	ug/kg	997	227	20	04/24/18 07:41	04/25/18 19:59	11141-16-5	
PCB-1242 (Aroclor 1242)	**<227**	ug/kg	997	227	20	04/24/18 07:41	04/25/18 19:59	53469-21-9	
PCB-1248 (Aroclor 1248)	**3540**	ug/kg	997	227	20	04/24/18 07:41	04/25/18 19:59	12672-29-6	
PCB-1254 (Aroclor 1254)	**2340**	ug/kg	997	227	20	04/24/18 07:41	04/25/18 19:59	11097-69-1	
PCB-1260 (Aroclor 1260)	**253J**	ug/kg	997	227	20	04/24/18 07:41	04/25/18 19:59	11096-82-5	
PCB, Total	**6130**	ug/kg	997	227	20	04/24/18 07:41	04/25/18 19:59	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	60-140		20	04/24/18 07:41	04/25/18 19:59	877-09-8	S4
Decachlorobiphenyl (S)	0	%	60-140		20	04/24/18 07:41	04/25/18 19:59	2051-24-3	S4
Lipid	Analytical Method: Pace Lipid								
Lipid	**4.6**	%	0.030	0.030	1		04/25/18 08:52		

DF 20
Diluted out
No Qual

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(920)469-2436

ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: ND1-170828-01-PKSD-03 **Lab ID: 40157940018** Collected: 08/28/17 17:36 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<56.9**	ug/kg	250	56.9	5	04/24/18 07:41	04/25/18 20:15	12674-11-2	
PCB-1221 (Aroclor 1221)	**145J**	ug/kg	250	56.9	5	04/24/18 07:41	04/25/18 20:15	11104-28-2	
PCB-1232 (Aroclor 1232)	**<56.9**	ug/kg	250	56.9	5	04/24/18 07:41	04/25/18 20:15	11141-16-5	
PCB-1242 (Aroclor 1242)	**<56.9**	ug/kg	250	56.9	5	04/24/18 07:41	04/25/18 20:15	53469-21-9	
PCB-1248 (Aroclor 1248)	**1320**	ug/kg	250	56.9	5	04/24/18 07:41	04/25/18 20:15	12672-29-6	
PCB-1254 (Aroclor 1254)	**805**	ug/kg	250	56.9	5	04/24/18 07:41	04/25/18 20:15	11097-69-1	
PCB-1260 (Aroclor 1260)	**116J**	ug/kg	250	56.9	5	04/24/18 07:41	04/25/18 20:15	11096-82-5	
PCB, Total	**2390**	ug/kg	250	56.9	5	04/24/18 07:41	04/25/18 20:15	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	98	%	60-140		5	04/24/18 07:41	04/25/18 20:15	877-09-8	
Decachlorobiphenyl (S)	111	%	60-140		5	04/24/18 07:41	04/25/18 20:15	2051-24-3	
Lipid	Analytical Method: Pace Lipid								
Lipid	**2.9**	%	0.030	0.030	1		04/25/18 08:52		

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: ND1-170828-01-PKSD-02 **Lab ID: 40157940019** Collected: 08/28/17 17:35 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<342**	ug/kg	1500	342	30	04/24/18 07:41	04/25/18 21:02	12674-11-2	
PCB-1221 (Aroclor 1221)	**3200**	ug/kg	1500	342	30	04/24/18 07:41	04/25/18 21:02	11104-28-2	
PCB-1232 (Aroclor 1232)	**<342**	ug/kg	1500	342	30	04/24/18 07:41	04/25/18 21:02	11141-16-5	
PCB-1242 (Aroclor 1242)	**<342**	ug/kg	1500	342	30	04/24/18 07:41	04/25/18 21:02	53469-21-9	
PCB-1248 (Aroclor 1248)	**6370**	ug/kg	1500	342	30	04/24/18 07:41	04/25/18 21:02	12672-29-6	
PCB-1254 (Aroclor 1254)	**2470**	ug/kg	1500	342	30	04/24/18 07:41	04/25/18 21:02	11097-69-1	
PCB-1260 (Aroclor 1260)	**496J**	ug/kg	1500	342	30	04/24/18 07:41	04/25/18 21:02	11096-82-5	
PCB, Total	**12500**	ug/kg	1500	342	30	04/24/18 07:41	04/25/18 21:02	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	0	%	60-140		30	04/24/18 07:41	04/25/18 21:02	877-09-8	S4
Decachlorobiphenyl (S)	0	%	60-140		30	04/24/18 07:41	04/25/18 21:02	2051-24-3	S4
Lipid	Analytical Method: Pace Lipid								
Lipid	**3.7**	%	0.030	0.030	1		04/25/18 08:52		

DF 710
Diluted out
No Qual

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ANALYTICAL RESULTS

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Sample: ND1-170828-01-PKSD-01 **Lab ID: 40157940020** Collected: 08/28/17 17:33 Received: 10/04/17 14:05 Matrix: Tissue

Results reported on a "wet-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082A Modified GCT PCB	Analytical Method: EPA 8082A Mod Preparation Method: EPA 3541								
PCB-1016 (Aroclor 1016)	**<45.6**	ug/kg	200	45.6	4	04/24/18 07:41	04/25/18 21:18	12674-11-2	
PCB-1221 (Aroclor 1221)	**101J**	ug/kg	200	45.6	4	04/24/18 07:41	04/25/18 21:18	11104-28-2	
PCB-1232 (Aroclor 1232)	**<45.6**	ug/kg	200	45.6	4	04/24/18 07:41	04/25/18 21:18	11141-16-5	
PCB-1242 (Aroclor 1242)	**<45.6**	ug/kg	200	45.6	4	04/24/18 07:41	04/25/18 21:18	53469-21-9	
PCB-1248 (Aroclor 1248)	**1080**	ug/kg	200	45.6	4	04/24/18 07:41	04/25/18 21:18	12672-29-6	
PCB-1254 (Aroclor 1254)	**658**	ug/kg	200	45.6	4	04/24/18 07:41	04/25/18 21:18	11097-69-1	
PCB-1260 (Aroclor 1260)	**79.0J**	ug/kg	200	45.6	4	04/24/18 07:41	04/25/18 21:18	11096-82-5	
PCB, Total	**1920**	ug/kg	200	45.6	4	04/24/18 07:41	04/25/18 21:18	1336-36-3	
Surrogates									
Tetrachloro-m-xylene (S)	91	%	60-140		4	04/24/18 07:41	04/25/18 21:18	877-09-8	
Decachlorobiphenyl (S)	102	%	60-140		4	04/24/18 07:41	04/25/18 21:18	2051-24-3	
Lipid	Analytical Method: Pace Lipid								
Lipid	**2.0**	%	0.030	0.030	1		04/25/18 08:52		

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SECTION 5

CASE NARRATIVES AND CHAIN-OF-CUSTODY RECORDS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40148598

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40148598001	TZ1-170418-01-STB-05	Tissue	04/18/17 17:48	04/19/17 09:30
40148598002	TZ1-170418-01-STB-04	Tissue	04/18/17 17:44	04/19/17 09:30
40148598003	TZ1-170418-01-STB-03	Tissue	04/18/17 17:42	04/19/17 09:30
40148598004	TZ1-170418-01-STB-02	Tissue	04/18/17 17:40	04/19/17 09:30
40148598005	TZ1-170418-01-STB-01	Tissue	04/18/17 17:35	04/19/17 09:30

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CASE NARRATIVE - PCB ANALYSIS

Lab Report Number (SDG): 40148598
Client: GENERAL ELECTRIC COMPANY
Project Name: HUDSON RIVER REMEDIAL ACTION MONITORING PROGRAM
Project Number: N/A

1. RECEIPT

Samples were received on ice at 2°C. Following homogenization, tissue samples were kept frozen at less than -10°C until time of preparation for analysis.

2. HOLDING TIMES

A. **Sample Preparation:** All method and QAPP specified holding times were met.
B. **Sample Analysis:** All method and QAPP specified holding times were met.

3. METHOD

Preparation: SW-846 3541
Analysis: SW-846 8082A Modified

4. PREPARATION

Sample preparation proceeded normally. All samples went through florisil and acid clean-up procedures prior to analysis.

5. ANALYSIS

A. **Calibration:**
   1. **Initial verification:** All method acceptance criteria were met.
   2. **Continuing verification:** All method acceptance criteria were met.
B. **Blanks:**
   1. **Method:** All acceptance criteria were met for the associated method blank.
C. **Surrogates:** All QAPP specified acceptance criteria were met.
D. **Spikes:**
   1. **Lab Control Spike (LCS):** The control spike was fortified with Aroclor 1242 and met the QAPP specified accuracy criteria.
   2. **Matrix Spike (MS):** Sample TZ1-170418-01-STB-01 was designated as the parent sample for the MS for this SDG and one portion of the sample was fortified with Aroclor 1242. The MS required a 1:2 dilution to bring a non-fortified Aroclor within instrument calibration range. The QAPP specified accuracy criteria were met.
E. **Samples:** Sample analyses proceeded normally. ZB-1ms is the quantitation column.
F. **Sample Duplicate:** Sample TZ1-170418-01-STB-01 was designated as the duplicate for this SDG. The QAPP specified precision criteria were met. A batch duplicate was also analyzed with this SDG. Duplicate results are not evaluated below the reporting limit.
G. **Dilutions:** Sample TZ1-170418-01-STB-01 was analyzed at a dilution to bring the level of Aroclors within the calibration range of the instrument.
H. **Reanalysis:** None required for this SDG.
I. **Comments:** Due to rounding differences in the software programs used, the values found on the quantitation reports may not match the values found on the sample Form 1s.

   This data package was revised to address various client requests and to update Lipids reporting.

I certify that this data package is in compliance with the terms and conditions agreed to by **Pace Analytical Services, LLC**, and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this completed data package:

Signed: Leigh A Begalske Date: 05/02/18

Name: Leigh A. Begalske Position: Quality Assurance Auditor

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40148598

Method: **EPA 8082A Mod**
Description: 8082A Modified GCT PCB
Client: General Electric
Date: May 01, 2018

General Information:
5 samples were analyzed for EPA 8082A Mod. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40148598

Method: **Pace Lipid**
Description: Lipid
Client: General Electric
Date: May 01, 2018

General Information:
5 samples were analyzed for Pace Lipid. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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T

40148598

ANCHOR QEA

301 West Grand Avenue Montvale, NJ 07645 Ph: 201-930-9890

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: COC170418-T11-01
Sample Custodian: MCS
Lab: Pace - Green Bay

Client: General Electric Company

Project: Hudson River Remedial Action Monitoring Program

	COC Sample Number	Sampling Event ID	Field Sample ID	Sample Date	Sample Time	MS/LD	# CONTAINERS	Media*	Prep**	Composite	EPA Split	Total PCBs NE013_09	Total PCBs SW846 8082A	Percent Lipid (S-GB-O-068)	Fillet Weight (S-GB-L-009)	
001	001	TZ1-170418-01	TZ1-170418-01-STB-05	4/18/2017	17:48	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
002	002	TZ1-170418-01	TZ1-170418-01-STB-04	4/18/2017	17:44	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
003	003	TZ1-170418-01	TZ1-170418-01-STB-03	4/18/2017	17:42	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
004	004	TZ1-170418-01	TZ1-170418-01-STB-02	4/18/2017	17:40	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
005	005	TZ1-170418-01	TZ1-170418-01-STB-01	4/18/2017	17:35	☑	1	F	FLRC	☐	☐	☐	☑	☑	☑	

1-ziploc A

Comments:

Relinquished by:	Received by:	Relinquished by:	Received by:	Relinquished by:	Received by:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name Jim Ryan	Print Name Fed EX	Print Name Fed EX	Print Name Sam Mulesa	Print Name	Print Name
Company Anchor QEA	Company	Company	Company Pace	Company	Company
Date/Time 4/18/17 19:00	Date/Time	Date/Time 4/14/17 0930	Date/Time 4/14/17 0930	Date/Time	Date/Time

SSM 5/31/18

Date Printed:* 4/18/2017** * F= FISH **F=Fillet, WH=Whole Body, O=Offal ***COC TYPE: *TPCB-LIPD-PEST-MERCURY* ***Page 1 of 1***

Revised ✓
6/1/18

T

40148598

ANCHOR QEA

105 West Grand Avenue Montvale, NJ 07645 Ph: 201-930-9890

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: COC170418-T11-01
Sample Custodian: MCS
Lab: Pace - Green Bay

Client: General Electric Company

Project: Hudson River Remedial Action Monitoring Program

	COC Sample Number	Sampling Event ID	Field Sample ID	Sample Date	Sample Time	MS/LD	# CONTAINERS	Media*	Prep**	Composite	EPA Split	Total PCBs NE013_09	Total PCBs SW846 8082A	Percent Lipid (S-GB-O-068)	Fillet Weight (S-GB-L-009)	
001	001	TZ1-170418-01	TZ1-170418-01-STB-05	4/18/2017	17:48	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
002	002	TZ1-170418-01	TZ1-170418-01-STB-04	4/18/2017	17:44	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
003	003	TZ1-170418-01	TZ1-170418-01-STB-03	4/18/2017	17:42	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
004	004	TZ1-170418-01	TZ1-170418-01-STB-02	4/18/2017	17:40	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
005	005	TZ1-170418-01	TZ1-170418-01-STB-01	4/18/2017	17:35	☑	1	F	FLRC	☐	☐	☐	☑	☑	☑	

1-ziploc A

Comments:

Relinquished by:	Received by:	Relinquished by:	Received by:	Relinquished by:	Received by:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name Jim Ryan	Print Name Fed EX	Print Name Fed Ex	Print Name Sam Pulesa	Print Name	Print Name
Company Anchor QEA	Company	Company	Company Pace	Company	Company
Date/Time 4/18/17 19:00	Date/Time	Date/Time 4/14/17 0930	Date/Time 4/14/17	Date/Time	Date/Time

Date Printed:* 4/18/2017** * F= FISH **F=Fillet, WH=Whole Body, O=Offal ***COC TYPE: *TPCB-LIPD-PEST-MERCURY* ***Page 1 of 1***

Pace Analytical

Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Project #: **WO#: 40148598**

40148598

Client Name: Anchor QEA

Courier: ☒ Fed Ex ☐ UPS ☐ Client ☐ Pace Other:

Tracking #: 7862 ~~8380~~ SSM 4/19/17 → 8380(0671), (0682)

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals Intact: ☒ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Foil + Plastic bags SSM 4/19/17

Thermometer Used SR-73 **Type of Ice:** Wet Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 2 /Corr: 2 **Biological Tissue is Frozen:** ☒ yes ☐ no

Temp Blank Present: ☒ yes ☐ no

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

Person examining contents:
Date: 4/19/17
Initials: SSM

				Comments:
Chain of Custody Present:	☒Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☒Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☒Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☐Yes	☒No	☐N/A	4. Sampler name present. ok
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes	☐No		Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes	☒No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☒No	☐N/A	7.
Sufficient Volume:	☒Yes	☐No	☐N/A	8.
Correct Containers Used:	☒Yes	☐No	☒N/A	9. SSM 4/19/17
-Pace Containers Used:	☐Yes	☒No	☒N/A	
-Pace IR Containers Used:	☐Yes	☐No	☒N/A	
Containers Intact:	☒Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: B	☒Yes	☐No	☐N/A	12.
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes	☐No	☒N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes	☐No	☒N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes	☒No		Initial when completed / Lab Std #ID of preservative / Date/Time:
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	14.
Trip Blank Present:	☐Yes	☒No	☐N/A	15.
Trip Blank Custody Seals Present	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: [signature] **Date:** 4/19/17

F-GB-C-031-Rev.03 (9April2015) SCUR Form

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40151542

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40151542001	TD4-170612-01-SMB-01	Tissue	06/12/17 16:16	06/13/17 09:30
40151542002	TD3-170612-01-SMB-05	Tissue	06/12/17 16:09	06/13/17 09:30
40151542003	TD3-170612-01-SMB-04	Tissue	06/12/17 16:07	06/13/17 09:30
40151542004	TD3-170612-01-SMB-03	Tissue	06/12/17 16:05	06/13/17 09:30
40151542005	TD3-170612-01-SMB-02	Tissue	06/12/17 16:03	06/13/17 09:30
40151542006	TD3-170612-01-SMB-01	Tissue	06/12/17 16:01	06/13/17 09:30

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CASE NARRATIVE - PCB ANALYSIS

Lab Report Number (SDG): 40151542
Client: GENERAL ELECTRIC COMPANY
Project Name: HUDSON RIVER REMEDIAL ACTION MONITORING PROGRAM
Project Number: N/A

1. RECEIPT

Samples were received on ice at 0°C. Following homogenization, tissue samples were kept frozen at less than -10°C until time of preparation for analysis.

2. HOLDING TIMES

A. **Sample Preparation:** All method and QAPP specified holding times were met.
B. **Sample Analysis:** All method and QAPP specified holding times were met.

3. METHOD

Preparation: SW-846 3541
Analysis: SW-846 8082A Modified

4. PREPARATION

Sample preparation proceeded normally. All samples went through florisil and acid clean-up procedures prior to analysis.

5. ANALYSIS

A. **Calibration:**
   1. **Initial verification:** All method acceptance criteria were met.
   2. **Continuing verification:** All method acceptance criteria were met.
B. **Blanks:**
   1. **Method:** All acceptance criteria were met for the associated method blank.
C. **Surrogates:** All QAPP specified acceptance criteria were met.
D. **Spikes:**
   1. **Lab Control Spike (LCS):** The control spike was fortified with Aroclor 1242 and met the QAPP specified accuracy criteria.
   2. **Matrix Spike (MS):** Sample TD3-170612-01-SMB-03 was designated as the parent sample for the MS for this SDG and one portion of the sample was fortified with Aroclor 1242. The MS required a 1:10 dilution to bring a non-fortified Aroclor within instrument calibration range. The QAPP specified accuracy criteria were not met; the "M1" data qualifier was applied to the parent result on the final report.
E. **Samples:** Sample analyses proceeded normally. ZB-1ms is the quantitation column.
F. **Sample Duplicate:** Sample TD3-170612-01-SMB-03 was designated as the duplicate for this SDG. The QAPP specified precision criteria were met. Duplicate results are not evaluated below the reporting limit.
G. **Dilutions:** All samples with the exception of TD4-170612-01-SMB-01 were analyzed at a dilution to bring the level of Aroclors within the calibration range of the instrument.
H. **Reanalysis:** None required for this SDG.
I. **Comments:** Due to rounding differences in the software programs used, the values found on the quantitation reports may not match the values found on the sample Form 1s.

This data package was revised to address various client requests (27Apr2018). This data package was further revised to update the Lipids reporting as requested by the client (07May2018).

I certify that this data package is in compliance with the terms and conditions agreed to by **Pace Analytical Services, LLC**, and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this completed data package:

Signed: Leigh A Begalske Date: 05/07/18

Name: Leigh A. Begalske Position: Quality Assurance Auditor

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40151542

Method: **EPA 8082A Mod**
Description: 8082A Modified GCT PCB
Client: General Electric
Date: May 03, 2018

General Information:
6 samples were analyzed for EPA 8082A Mod. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 281918

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40151542004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1652258)
  - PCB-1242 (Aroclor 1242)

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40151542

Method: **Pace Gender Typing**
Description: Fish Gender Typing
Client: General Electric
Date: May 03, 2018

General Information:
6 samples were analyzed for Pace Gender Typing. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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(920)469-2436

PROJECT NARRATIVE

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40151542

Method: **Pace Lipid**
Description: Lipid
Client: General Electric
Date: May 03, 2018

General Information:
6 samples were analyzed for Pace Lipid. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANCHOR QEA

105 West Grand Avenue Montvale, NJ 07645 Ph: 201-930-9890

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: COC170612-T11-01
Sample Custodian: JER
Lab: Pace - Green Bay

Client: General Electric Company
Project: Hudson River Remedial Action Monitoring Program

COC Sample Number	Sampling Event ID	Field Sample ID	Sample Date	Sample Time	MS/LD	# CONTAINERS	Media*	Prep**	Composite	EPA Split	Total PCBs NE013_09	Total PCBs SW846 8082A	Percent Lipid (S-GB-O-068)	Fillet Weight (S-GB-L-009)	
001	TD5-170612-01	TD5-170612-01-SMB-02	6/12/2017	15:07	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
002	TD5-170612-01	TD5-170612-01-SMB-01	6/12/2017	15:05	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
003	TD5-170612-01	TD5-170612-01-LMB-08	6/12/2017	15:02	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
004	TD5-170612-01	TD5-170612-01-LMB-07	6/12/2017	15:00	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
005	TD5-170612-01	TD5-170612-01-LMB-06	6/12/2017	14:58	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
006	TD5-170612-01	TD5-170612-01-LMB-05	6/12/2017	14:55	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
007	TD5-170612-01	TD5-170612-01-LMB-04	6/12/2017	14:54	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
008	TD5-170612-01	TD5-170612-01-LMB-03	6/12/2017	14:51	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
009	TD5-170612-01	TD5-170612-01-LMB-02	6/12/2017	14:49	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
010	TD5-170612-01	TD5-170612-01-LMB-01	6/12/2017	14:45	☑	1	F	FLRC	☐	☐	☐	☑	☑	☑	

Comments:

Relinquished by:	Received by:	Relinquished by:	Received by:	Relinquished by:	Received by:
Signature: Fedex	Signature: Pace	Signature	Signature	Signature	Signature
Print Name	Print Name: Meetle	Print Name	Print Name	Print Name	Print Name
Company	Company: Pace	Company	Company	Company	Company
Date/Time	Date/Time: 6/13/17 0930	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 6/12/2017 * F= FISH **F=Fillet, WH=Whole Body, O=Offal ***COC TYPE:*** *TPCB-LIPD-PEST-MERCURY* ***Page 1 of 2***

No ~~Collector~~
date / time

ANCHOR QEA

305 West Grand Avenue Montvale, NJ 07645 Ph: 201-930-9890

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: COC170612-T11-01
Sample Custodian: JER
Lab: Pace - Green Bay

Client: General Electric Company
Project: Hudson River Remedial Action Monitoring Program

COC Sample Number	Sampling Event ID	Field Sample ID	Sample Date	Sample Time	MS/LD	# CONTAINERS	Media*	Prep**	Composite	EPA Split	Total PCBs NE013_09	Total PCBs SW846 8082A	Percent Lipid (S-GB-O-068)	Fillet Weight (S-GB-L-009)	
011	TD4-170612-01	TD4-170612-01-SMB-04	6/12/2017	16:19	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
012	TD4-170612-01	TD4-170612-01-SMB-03	6/12/2017	16:18	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
013	TD4-170612-01	TD4-170612-01-SMB-02	6/12/2017	16:17	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
001 014	TD4-170612-01	TD4-170612-01-SMB-01	6/12/2017	16:16	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
002 015	TD3-170612-01	TD3-170612-01-SMB-05	6/12/2017	16:09	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
003 016	TD3-170612-01	TD3-170612-01-SMB-04	6/12/2017	16:07	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
004 017	TD3-170612-01	TD3-170612-01-SMB-03	6/12/2017	16:05	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
005 018	TD3-170612-01	TD3-170612-01-SMB-02	6/12/2017	16:03	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
006 019	TD3-170612-01	TD3-170612-01-SMB-01	6/12/2017	16:01	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
020	TD2-170612-01	TD2-170612-01-SMB-04	6/12/2017	13:25	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	

1-ziploc

Comments:

Relinquished by:	Received by:	Relinquished by:	Received by:	Relinquished by:	Received by:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name	Print Name	Print Name	Print Name	Print Name	Print Name
Company Fedex	Company Pace	Company	Company	Company	Company
Date/Time	Date/Time 6/13/170930	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 6/12/2017 * F= FISH **F=Fillet, WH=Whole Body, O=Offal ***COC TYPE:*** *TPCB-LIPD-PEST-MERCURY* ***Page 2 of 2***

Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical™

Project #: **WO# : 40151542**

40151542

Client Name: Anchor

Courier: ☒ Fed Ex ☐ UPS ☐ Client ☐ Pace Other:

Tracking #: 779380651290

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Thermometer Used SR68 **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 0 /Corr: 0 **Biological Tissue is Frozen:** ☐ yes ☒ no

Temp Blank Present: ☐ yes ☒ no

Person examining contents:
Date: 6-13-17
Initials: SKW

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

		Comments:
Chain of Custody Present:	☐Yes ☒No ☐N/A	1. printed off 6/13/17
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☐Yes ☒No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☒No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☐Yes ☒No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☒N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: B		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes ☐No ☒N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes ☐No ☒N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes ☒No	Initial when completed / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	14.
Trip Blank Present:	☐Yes ☐No ☒N/A	15.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased):		

If checked, see attached form for additional comments ☐

Client Notification/ Resolution:
Person Contacted: Date/Time:
Comments/ Resolution: Only one cooler of 3 received 6-13-17 SKW

Project Manager Review: AL for TN **Date:** 6/14/17

F-GB-C-031-Rev.04 (12Dec2016) SCUR.xls
Pace Analytical Services LLC. - Green Bay WI

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: HUDSON RIVER REMEDIAL ACTION
Pace Project No.: 40151619

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40151619001	SW1-170613-01-YP-05	Tissue	06/13/17 16:21	06/14/17 15:21
40151619002	SW1-170613-01-YP-04	Tissue	06/13/17 16:20	06/14/17 15:21
40151619003	SW1-170613-01-YP-03	Tissue	06/13/17 16:18	06/14/17 15:21
40151619004	SW1-170613-01-YP-02	Tissue	06/13/17 16:16	06/14/17 15:21

0450

Pace Analytical®

CASE NARRATIVE - PCB ANALYSIS

Lab Report Number (SDG): 40151619
Client: GENERAL ELECTRIC COMPANY
Project Name: HUDSON RIVER REMEDIAL ACTION MONITORING PROGRAM
Project Number: N/A

1. RECEIPT

Samples were received on ice at or below 3°C. Following homogenization, tissue samples were kept frozen at less than -10°C until time of preparation for analysis.

2. HOLDING TIMES

A. **Sample Preparation:** All method and QAPP specified holding times were met.
B. **Sample Analysis:** All method and QAPP specified holding times were met.

3. METHOD

Preparation: SW-846 3541
Analysis: SW-846 8082A Modified

4. PREPARATION

Sample preparation proceeded normally. All samples went through florisil and acid clean-up procedures prior to analysis.

5. ANALYSIS

A. **Calibration:**
   1. **Initial verification:** All method acceptance criteria were met.
   2. **Continuing verification:** All method acceptance criteria were met.
B. **Blanks:**
   1. **Method:** All acceptance criteria were met for the associated method blanks.
C. **Surrogates:** All QAPP specified acceptance criteria were met. Surrogate levels are below the lowest calibration level when dilution factors are greater than 10. In the cases where the surrogates are not applicable due to sample dilution, the "S4" data qualifier is applied to the final report.
D. **Spikes:**
   1. **Lab Control Spike (LCS):** The control spikes were fortified with Aroclor 1242 and met the QAPP specified accuracy criteria.
   2. **Matrix Spike (MS):** Sample SW1-170613-01-YP-04 was designated as the parent sample for the MS for this SDG and one portion of the sample was fortified with Aroclor 1242. The MS required a 1:2 dilution to bring a non-fortified Aroclor within instrument calibration range. The QAPP specified accuracy criteria were met.
E. **Samples:** Sample analyses proceeded normally. ZB-1ms is the quantitation column.
F. **Sample Duplicate:** Sample SW1-170613-01-YP-04 was designated as the duplicate for this SDG. The QAPP specified precision criteria were met. Duplicate results are not evaluated below the reporting limit.
G. **Dilutions:** None required for this SDG.
H. **Reanalysis:** MS 1662165 was initially analyzed straight based on screener data. Upon analysis, the MS was found to require reanalysis at a dilution to bring individual Aroclor peaks within instrument calibration range. The MS was reported with the "1q" data qualifier on the final report to note the occurrence.
I. **Comments:** Due to rounding differences in the software programs used, the values found on the quantitation reports may not match the values found on the sample Form 1s.

I certify that this data package is in compliance with the terms and conditions agreed to by **Pace Analytical Services, LLC**, and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this completed data package:

Signed: Leigh A Begalske Date: 05/14/18

Name: Leigh A. Begalske Position: Quality Assurance Auditor

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: HUDSON RIVER REMEDIAL ACTION
Pace Project No.: 40151619

Date: May 15, 2018

Samples may have ice meltwater in the ziplock bags.

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Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: HUDSON RIVER REMEDIAL ACTION
Pace Project No.: 40151619

Method: **EPA 8082A Mod**
Description: 8082A Modified GCT PCB
Client: General Electric
Date: May 15, 2018

General Information:
4 samples were analyzed for EPA 8082A Mod. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 283977

1q: Sample was re-analyzed due to incorrect dilution.
- MS (Lab ID: 1662165)
  - PCB-1016 (Aroclor 1016)

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Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: HUDSON RIVER REMEDIAL ACTION
Pace Project No.: 40151619

Method: **Pace Gender Typing**
Description: Fish Gender Typing
Client: General Electric
Date: May 15, 2018

General Information:
4 samples were analyzed for Pace Gender Typing. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: HUDSON RIVER REMEDIAL ACTION
Pace Project No.: 40151619

Method: Pace Lipid
Description: Lipid
Client: General Electric
Date: May 15, 2018

General Information:
4 samples were analyzed for Pace Lipid. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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40151619

ANCHOR QEA

105 West Grand Avenue Montvale, NJ 07645 Ph: 201-930-9890

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: COC170613-T11-06
Sample Custodian: MCS
Lab: Pace - Green Bay

Client: General Electric Company
Project: Hudson River Remedial Action Monitoring Program

	COC Sample Number	Sampling Event ID	Field Sample ID	Sample Date	Sample Time	MS/LD	# CONTAINERS	Media*	Prep**	Composite	EPA Split	Total PCBs NE013_09	Total PCBs SW846 8082A	Percent Lipid (S-GB-O-068)	Fillet Weight (S-GB-L-009)	
001	001	SW1-170613-01	SW1-170613-01-YP-05	6/13/2017	16:21	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
002	002	SW1-170613-01	SW1-170613-01-YP-04	6/13/2017	16:20	☑	1	F	FLRC	☐	☐	☐	☑	☑	☑	
003	003	SW1-170613-01	SW1-170613-01-YP-03	6/13/2017	16:18	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	
004	004	SW1-170613-01	SW1-170613-01-YP-02	6/13/2017	16:16	☐	1	F	FLRC	☐	☐	☐	☑	☑	☑	

1-ziploc

Comments:

Relinquished by:	Received by:	Relinquished by:	Received by:	Relinquished by:	Received by:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name	Print Name Heather	Print Name	Print Name	Print Name	Print Name
Company Fedex	Company Pace	Company	Company	Company	Company
Date/Time 6/14/17 0750	Date/Time 6/14/17 0950	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 6/13/2017 * F= FISH **F=Fillet, WH=Whole Body, O=Offal ***COC TYPE:*** *TPCB-LIPD-PEST-MERCURY* ***Page 1 of 1***

40151619

Pace Analytical

Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Project #: **WO#: 40151619**

40151619

Client Name: Anchor

Courier: ☑ Fed Ex ☐ UPS ☐ Client ☐ Pace Other:

Tracking #: 786867884126, 786867884090, 786867884104

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☐ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used SR-70 **Type of Ice:** Wet Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 2.3, 3 /Corr: 2.3, 3 **Biological Tissue is Frozen:** ☐ yes ☑ no

Temp Blank Present: ☑ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 6/14/17
Initials: [illegible]

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☐Yes ☑No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☑No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: B		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes ☐No ☑N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes ☑No	Initial when completed / Lab Std #ID of preservative / Date/Time:
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	14.
Trip Blank Present:	☐Yes ☐No ☑N/A	15.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution: all Samples have melt water in ziploc [illegible] 6/14/17

Project Manager Review: AL for TN **Date:** 6/14/17

F-GB-C-031-Rev.04 (12Dec2016) SCUR.xls
Pace Analytical Services LLC. - Green Bay WI

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40157940001	TD5-170828-01-PKSD-02	Tissue	08/28/17 14:11	10/04/17 14:05
40157940002	TD3-170828-01-PKSD-05	Tissue	08/28/17 15:10	10/04/17 14:05
40157940003	TD3-170828-01-PKSD-04	Tissue	08/28/17 15:09	10/04/17 14:05
40157940004	TD3-170828-01-PKSD-03	Tissue	08/28/17 15:07	10/04/17 14:05
40157940005	TD3-170828-01-PKSD-02	Tissue	08/28/17 15:05	10/04/17 14:05
40157940006	TD2-170828-01-PKSD-02	Tissue	08/28/17 12:19	10/04/17 14:05
40157940007	TD2-170828-01-PKSD-01	Tissue	08/28/17 12:15	10/04/17 14:05
40157940008	TD1-170828-01-PKSD-05	Tissue	08/28/17 12:00	10/04/17 14:05
40157940009	TD1-170828-01-PKSD-04	Tissue	08/28/17 11:58	10/04/17 14:05
40157940010	TD1-170828-01-PKSD-03	Tissue	08/28/17 11:56	10/04/17 14:05
40157940011	TD1-170828-01-PKSD-02	Tissue	08/28/17 11:53	10/04/17 14:05
40157940012	ND2-170828-01-PKSD-04	Tissue	08/28/17 17:51	10/04/17 14:05
40157940013	ND2-170828-01-PKSD-03	Tissue	08/28/17 17:50	10/04/17 14:05
40157940014	ND2-170828-01-PKSD-02	Tissue	08/28/17 17:48	10/04/17 14:05
40157940015	ND2-170828-01-GOSH-02	Tissue	08/28/17 17:58	10/04/17 14:05
40157940016	ND1-170828-01-PKSD-06	Tissue	08/28/17 17:41	10/04/17 14:05
40157940017	ND1-170828-01-PKSD-05	Tissue	08/28/17 17:40	10/04/17 14:05
40157940018	ND1-170828-01-PKSD-03	Tissue	08/28/17 17:36	10/04/17 14:05
40157940019	ND1-170828-01-PKSD-02	Tissue	08/28/17 17:35	10/04/17 14:05
40157940020	ND1-170828-01-PKSD-01	Tissue	08/28/17 17:33	10/04/17 14:05

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CASE NARRATIVE - PCB ANALYSIS

Lab Report Number (SDG): 40157940
Client: GENERAL ELECTRIC COMPANY
Project Name: HUDSON RIVER REMEDIAL ACTION MONITORING PROGRAM
Project Number: N/A

1. RECEIPT

Samples were received on ice at or below 1°C. Following homogenization, tissue samples were kept frozen at less than -10°C until time of preparation for analysis.

2. HOLDING TIMES

A. **Sample Preparation:** All method and QAPP specified holding times were met.
B. **Sample Analysis:** All method and QAPP specified holding times were met.

3. METHOD

Preparation: SW-846 3541
Analysis: SW-846 8082A Modified

4. PREPARATION

Sample preparation proceeded normally. All samples went through florisil and acid clean-up procedures prior to analysis.

5. ANALYSIS

A. **Calibration:**
   1. **Initial verification:** All method acceptance criteria were met.
   2. **Continuing verification:** All method acceptance criteria were met.

B. **Blanks:**
   1. **Method:** All acceptance criteria were met for the associated method blanks.

C. **Surrogates:** All QAPP specified acceptance criteria were met. Surrogate levels are below the lowest calibration level when dilution factors are greater than 10. In the cases where the surrogates are not applicable due to sample dilution, the "S4" data qualifier is applied to the final report.

D. **Spikes:**
   1. **Lab Control Spike (LCS):** The control spikes were fortified with Aroclor 1242 and met the QAPP specified accuracy criteria.
   2. **Matrix Spike (MS):** Sample ND2-170828-01-GOSH-02 was designated as the parent sample for the MS for this SDG and one portion of the sample was fortified with Aroclor 1242. The MS required a 1:20 dilution to bring a non-fortified Aroclor within instrument calibration range. Spike levels are below the lowest calibration level when dilution factors are greater than five; therefore, the accuracy criteria for the MS are not applicable. The "M6" data qualifier was applied to the parent result on the final report. Batch QC was also analyzed with this SDG.

E. **Samples:** Sample analyses proceeded normally. ZB-1ms is the quantitation column.

F. **Sample Duplicate:** Sample ND2-170828-01-GOSH-02 was designated as the duplicate for this SDG. The QAPP specified precision criteria were met. Batch duplicates were also analyzed with this SDG. Duplicate results are not evaluated below the reporting limit.

G. **Dilutions:** All samples of this SDG were analyzed at a dilution to bring the level of Aroclors within the instrument calibration range.

H. **Reanalysis:** Samples TD3-170828-01-PKSD-02 and ND2-170828-01-PKSD-03 were initially analyzed diluted based on screener data. Upon analysis, the samples were found to require reanalysis at different dilutions to bring individual Aroclor peaks within instrument calibration range. The samples were reported with the "1q" data qualifier on the final report to note the occurrence.

I. **Comments:** Due to rounding differences in the software programs used, the values found on the quantitation reports may not match the values found on the sample Form 1s.

Pace Analytical®

I certify that this data package is in compliance with the terms and conditions agreed to by **Pace Analytical Services, LLC**, and by the client, both technically and for completeness, except for the conditions detailed above. The Laboratory Manager or his designee, as verified by the following signature, has authorized release of the data contained in this completed data package:

Signed: Leigh A Begalske Date: 05/15/18

Name: Leigh A. Begalske Position: Quality Assurance Auditor

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PROJECT NARRATIVE

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Method: **EPA 8082A Mod**
Description: 8082A Modified GCT PCB
Client: General Electric
Date: May 10, 2018

General Information:
20 samples were analyzed for EPA 8082A Mod. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3541 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 286769

S4: Surrogate recovery not evaluated against control limits due to sample dilution. 7 of 10

- ND1-170828-01-PKSD-02 (Lab ID: 40157940019)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- ND1-170828-01-PKSD-05 (Lab ID: 40157940017)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- ND1-170828-01-PKSD-06 (Lab ID: 40157940016)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- ND2-170828-01-PKSD-02 (Lab ID: 40157940014)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- ND2-170828-01-PKSD-03 (Lab ID: 40157940013)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- ND2-170828-01-PKSD-04 (Lab ID: 40157940012)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- TD1-170828-01-PKSD-04 (Lab ID: 40157940009)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- TD1-170828-01-PKSD-05 (Lab ID: 40157940008)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)

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(920)469-2436

PROJECT NARRATIVE

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Method: **EPA 8082A Mod**
Description: 8082A Modified GCT PCB
Client: General Electric
Date: May 10, 2018

QC Batch: 286769

S4: Surrogate recovery not evaluated against control limits due to sample dilution.
- TD3-170828-01-PKSD-02 (Lab ID: 40157940005)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- TD3-170828-01-PKSD-03 (Lab ID: 40157940004)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- TD3-170828-01-PKSD-04 (Lab ID: 40157940003)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- TD3-170828-01-PKSD-05 (Lab ID: 40157940002)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)

QC Batch: 287324

S4: Surrogate recovery not evaluated against control limits due to sample dilution.
- DUP (Lab ID: 1681911)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- MS (Lab ID: 1681430)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)
- ND2-170828-01-GOSH-02 (Lab ID: 40157940015)
  - Decachlorobiphenyl (S)
  - Tetrachloro-m-xylene (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 286769

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40158013010

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
- MS (Lab ID: 1677645)
  - PCB-1242 (Aroclor 1242)

QC Batch: 287324

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40157940015

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
- MS (Lab ID: 1681430)

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Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Method: **EPA 8082A Mod**
Description: 8082A Modified GCT PCB
Client: General Electric
Date: May 10, 2018

QC Batch: 287324

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40157940015

M6: Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

- PCB-1242 (Aroclor 1242)

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 286769

1q: Sample was re-analyzed due to incorrect dilution.

- ND2-170828-01-PKSD-03 (Lab ID: 40157940013)
  - PCB-1016 (Aroclor 1016)
- TD3-170828-01-PKSD-02 (Lab ID: 40157940005)
  - PCB-1016 (Aroclor 1016)

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Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: HUDSON RIVER REMEDIAL ACTION M
Pace Project No.: 40157940

Method: **Pace Lipid**
Description: Lipid
Client: General Electric
Date: May 10, 2018

General Information:
20 samples were analyzed for Pace Lipid. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 286925

R1: RPD value was outside control limits.
- DUP (Lab ID: 1678325)
  - Lipid

see form

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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40157940

MK

ANCHOR QEA
305 West Grand Avenue Montvale, NJ 07645 Ph: 201-930-9890

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: COC170828-T11-02
Sample Custodian: SA
Lab: Pace - Green Bay

Client: General Electric Company

Project: Hudson River Remedial Action Monitoring Program

OK 10-4-17 SKW

COC Sample Number	Sampling Event ID	Field Sample ID	Sample Date	Sample Time	MS/LD	# CONTAINERS	Media*	Prep**	Composite	EPA Split	Total PCBs NE013_09	Total PCBs SW846 8082A	Percent Lipid (S-GB-O-068)	Fillet Weight (S-GB-L-009)	
001	TD5-170828-01	TD5-170828-01-PKSD-02	8/28/2017	14:11	☐	1	F	WH	☐	☐	☐	☑	☑	☐	1-ziploc A
002	TD3-170828-01	TD3-170828-01-PKSD-05	8/28/2017	15:10	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
003	TD3-170828-01	TD3-170828-01-PKSD-04	8/28/2017	15:09	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
004	TD3-170828-01	TD3-170828-01-PKSD-03	8/28/2017	15:07	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
005	TD3-170828-01	TD3-170828-01-PKSD-02	8/28/2017	15:05	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
006	TD2-170828-01	TD2-170828-01-PKSD-02	8/28/2017	12:19	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
007	TD2-170828-01	TD2-170828-01-PKSD-01	8/28/2017	12:15	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
008	TD1-170828-01	TD1-170828-01-PKSD-05	8/28/2017	12:00	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
009	TD1-170828-01	TD1-170828-01-PKSD-04	8/28/2017	11:58	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
010	TD1-170828-01	TD1-170828-01-PKSD-03	8/28/2017	11:56	☐	1	F	WH	☐	☐	☐	☑	☑	☐	

Comments:

Relinquished by:	Received by:	Relinquished by:	Received by:	Relinquished by:	Received by:
Signature [signature]	Signature [signature]	Signature [signature]	Signature [signature]	Signature [signature] VIA FED EX	Signature Fed Ex
Print Name Jim Ryan	Print Name D. Bubrish	Print Name D. Bubrish	Print Name D. Bittig	Print Name D. Bittig	Print Name
Company Anchor QEA	Company PACE	Company PACE	Company PACE T: 1.6°C	Company PACE	Company
Date/Time 8/29/17	Date/Time 8/29/17 1030	Date/Time 8/29/17 1115	Date/Time 8/29/17 11:15	Date/Time 10/3/17 16:00	Date/Time 10/4/17 1405

Susan K Wyle
Susan K Wyle
Pace
10/4/17 1405

Date Printed: 8/28/2017 * F= FISH **F=Fillet, WH=Whole Body, O=Offal **COC TYPE:** TPCB-LIPD-PEST-MERCURY **Page 1 of 2**

40157940

ANCHOR QEA

105 West Grand Avenue Montvale, NJ 07645 Ph: 201-930-9890

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: COC170828-T11-02
Sample Custodian: SA
Lab: Pace - Green Bay

Client: General Electric Company
Project: Hudson River Remedial Action Monitoring Program

ok 10/4/17 KW

COC Sample Number	Sampling Event ID	Field Sample ID	Sample Date	Sample Time	MS/LD	# CONTAINERS	Media*	Prep**	Composite	EPA Split	Total PCBs NE03_09	Total PCBs SW846 8082A	Percent Lipid (S-GB-O-068)	Fillet Weight (S-GB-L-009)	
011	TD1-170828-01	TD1-170828-01-PKSD-02	8/28/2017	11:53	☐	1	F	WH	☐	☐	☐	☑	☑	☐	1-ziploc A
012	ND2-170828-01	ND2-170828-01-PKSD-04	8/28/2017	17:51	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
013	ND2-170828-01	ND2-170828-01-PKSD-03	8/28/2017	17:50	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
014	ND2-170828-01	ND2-170828-01-PKSD-02	8/28/2017	17:48	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
015	ND2-170828-01	ND2-170828-01-GOSH-02	8/28/2017	17:58	☑	1	F	WH	☑	☐	☐	☑	☑	☐	
016	ND1-170828-01	ND1-170828-01-PKSD-06	8/28/2017	17:41	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
017	ND1-170828-01	ND1-170828-01-PKSD-05	8/28/2017	17:40	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
018	ND1-170828-01	ND1-170828-01-PKSD-03	8/28/2017	17:36	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
019	ND1-170828-01	ND1-170828-01-PKSD-02	8/28/2017	17:35	☐	1	F	WH	☐	☐	☐	☑	☑	☐	
020	ND1-170828-01	ND1-170828-01-PKSD-01	8/28/2017	17:33	☐	1	F	WH	☐	☐	☐	☑	☑	☐	

Comments:

Relinquished by:	Received by:	Relinquished by:	Received by:	Relinquished by:	Received by:
Signature	Signature	Signature	Signature	Signature K. Bitting via FED EX →	Signature Susan K Mylne Paul
Print Name Jim Ryan	Print Name D. Bubnick	Print Name D. Bubnick	Print Name N. Bitting	Print Name N. Bitting	Print Name
Company Anchor QEA	Company PACE	Company PACE	Company PACE T: 1.6°C	Company PACE	Company
Date/Time 8/29/17	Date/Time 8/29/17 1030	Date/Time 8/29/17 1115	Date/Time 8/29/17 11:15	Date/Time 10/3/17 16:00	Date/Time 10/4/17 1405 10/4/17 1405

Date Printed: 8/28/2017 * F= FISH **F=Fillet, WH=Whole Body, O=Offal ***COC TYPE:*** *TPCB-LIPD-PEST-MERCURY* ***Page 2 of 2***

40157940

Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical™

Client Name: GE

Project: WO#: 40157940

40157940

Courier: ☒ Fed Ex ☐ UPS ☐ Client ☐ Pace Other:

Tracking #: 409994704755; 409994704747

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Thermometer Used: SR68 Type of Ice: (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: 0.1 /Corr: 0.1 Biological Tissue is Frozen: ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Person examining contents: Date: 10-4-17 Initials:

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☑No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☐Yes ☑No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: B		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes ☐No ☑N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☐Yes ☑No	Initial when completed / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	14.
Trip Blank Present:	☐Yes ☐No ☑N/A	15.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: AL for TN **Date:** 10-5-17

F-GB-C-031-Rev.04 (12Dec2016) SCUR.xls
Pace Analytical Services LLC. - Green Bay WI

SECTION 6

PROJECT CORRESPONDENCE

Meg Michell

From: Tod Noltemeyer <Tod.Noltemeyer@pacelabs.com>
Sent: Friday, April 6, 2018 2:47 PM
To: Mark Meyers; David Blye; Meg Michell
Cc: Jared K. Acker; Chris Haase; Kate Verbeten; Leigh Begalske; Mary Christie
Subject: RE: GE Fish sample batch 40151542 - revised

Meg/David,

You have requested that we report results in two significant figures. That appears to be doable.

Does that apply just to the results, or also other things that are presented in data reports like RL, MDL and QC limits? Those functions may be a bit more challenging to change.

Thanks, Tod

Tod Noltemeyer

Project Manager

Pace Analytical Services, LLC

1241 Bellevue St.

Green Bay, WI 54302

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>>> Meg Michell <mmichell@envstd.com> 4/3/2018 8:51 AM >>>
Please see the attached based on a review of the revised data package. There are a few last items to revise/discuss. Please let us know when you have a chance to review.
Thanks!

From: Tod Noltemeyer [mailto:Tod.Noltemeyer@pacelabs.com]
Sent: Thursday, March 29, 2018 10:29 AM
To: Mark Meyers <mmeyers@anchorqea.com>; David Blye <DBLYE@envstd.com>; Meg Michell <mmichell@envstd.com>
Cc: Chris Haase <Chris.Haase@pacelabs.com>; Kate Verbeten <Kate.Verbeten@pacelabs.com>; Leigh Begalske <Leigh.Begalske@pacelabs.com>; Mary Christie <Mary.Christie@pacelabs.com>
Subject: GE Fish sample batch 40151542 - revised

Attached is a new and improved level 4 data package for GE fish sample batch 40151542. Please review and let us know if all is ok. If so we will then crank out many more packages.

Thanks, Tod

Tod Noltemeyer

Project Manager

Pace Analytical Services, LLC

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Review of 40151542_pkg_pcb_rev data package compared to notes sent to Green Bay on 3/14/18

SDG Narrative (GE Fish EDDs sample batch 40151542)

- States "Sample Preparation: The samples were kept frozen prior to extraction, therefore the sample hold-time criteria is not applicable." However, the QAPP holding time is 1 year to extraction when frozen. Please correct.
  This was corrected.

- States "**Surrogates:** All in-house acceptance criteria were met. The surrogates are only evaluated on the quantitation column." We use a single column analysis – this sounds like there is a confirmation column, please correct.
  Changed to
  *C. Surrogates: All **in-house** acceptance criteria were met.*
  This should be changed to ***QAPP*** acceptance criteria

- States "**Samples:** Sample analyses proceeded normally. RTX-CLP is the quantitation column. RTXCLP2 (RTX-CLP II) is the confirmation column." Please correct as any reference to the columns should be ZB-1 or DB-1, as appropriate, and this is a single column analysis.
  This was corrected.

- States "**Sample Duplicate:** Sample TD3-170612-01-SMB-03 was designated as the duplicate for this SDG. The in-house precision criteria were met with the following exception. The precision criteria were not met for Aroclor 1260; the "D6" data qualifier was applied to the parent result on the final report. Duplicate results are not evaluated below the reporting limit." Duplicate form uses incorrect criteria (see below) – the project criteria was met. Chris Haase indicated that the analysis code would be updated to use project criteria. Please correct.
  This was corrected.

Duplicate Summary

- States RPD limits is 0-30%. This does not match project criteria. Project criteria from QAPP is: The RPD for lab duplicates should be ≤40% for results >5× the RL. The difference between results should be ≤ 2× the RL when at least one result is ≤5× the RL. Chris Haase indicated that the analysis code would be updated to use project criteria.
  This was corrected.

Initial Calibration

- A1232 appears to be a single point calibration. All Aroclors are to be a 5 point calibration as per your SOP Section 13 table and historical data. As discussed with David Blye, if you are going to report A1232 (which should be rare to non-existent for GE Hudson River fish), then you will have to complete a full 5-point calibration for A1232 and then re-inject the sample extract.
  This was covered in our call on 3/16/18. ok, per SOP.

- There is not a summary form for the following criteria: SOP Section 11.4.6. Once linear calibration has been established it is subjected to an additional check. This check is the comparison of the calculated amount of the low calibration standard for each 5 point

Aroclor against the expected amount of the standard using the % difference. Can a summary for be added for this assessment?
CRDL / RL Verification forms and data were added to the revised data package. However, we are looking for a summary form of the differences between the calculated (or on-col amount) vs the expected amount (or cal amount) for each peak in each Aroclor low standard used in the initial calibration.

provided summary form

			AMOUNTS					
				CAL-AMT	ON-COL			
RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)	TARGET RANGE	RATIO	REVIEW CODE
1 Aroclor 1221					CAS #: 11104-28-2			
1.804	1.804	0.000	100196	0.10000	0.11	0.00- 20.00	100.00(M)	BA
2.407	2.407	0.000	59605	0.10000	0.11	0.00- 20.00	57.76	BA
2.689	2.689	0.001	132885	0.10000	0.11	0.00- 20.00	128.77	BA
2.789	2.789	0.000	103106	0.10000	0.10	0.00- 20.00	99.91	BA
2.852	2.851	0.001	299081	0.10000	0.10	0.00- 20.00	289.82	BA
		Average of Peak Amounts =			0.10600			

Raw data

Scaling on "zoomed in" chromatogram starts at 4 minutes which cuts off TCMX, A1221, A1232, and A1242 in samples and standards. Can a zoomed in chromatogram of this area also be provided? There are no pages displaying these peaks even for the A1221, A1232, and A1242 calibration standards. This area is not visible in the smaller (before/after manual integration) chromatograms provided and, for standards (e.g., pages 96, 100, 124, 154, 202, etc.) does not seem to include meaningful information due to the scaling used. Please fix the scaling on these chromatograms as well as provide the larger/zoomed in chromatograms for the earlier part of the chromatograms.
This was corrected. There will likely be instances in the future when a "zoomed in" or "blown up" chromatogram is requested when a trace-level Aroclor is reported.

Raw data "Sample Matrix" listed as SOIL for samples instead of tissue as on forms-can this be corrected?
This was corrected.

- "Zoomed in" chromatogram lists RTX-CLP column and 0.32 diameter, which must be corrected to ZB-1 or DB-1, as appropriate.
  This was corrected.

- Do not see screen log with predicted dilutions in the data package as per our discussion when we were at the lab.
  This was corrected.

Extraction Log

- Lot number provided for Tuna although tuna was not used for QC – please remove
  This was corrected.

- Lot number for hexane but not for acetone – please add a field for this and add lot # for completed data if possible
  This was corrected.

- Reviewed by/Reviewed by date is incomplete. Please complete.
  This was corrected.

Lipids

- Method blank summary (page 413) displays result as 0.0 vs 0.03 U.
  This was corrected.

- Duplicate summary states control limit to be 20%. Project criteria from QAPP is: The RPD for lab duplicates should be ≤40% for results >5× the RL. The difference between results should be ≤ 2× the RL when at least one result is ≤5× the RL. If possible, please use project criteria.
  This was corrected.

- Reviewed by/Reviewed by date is incomplete on Lipids raw data. Please complete.
  This was corrected.

- The lipids logs state that 1 mL of a 10 mL "sample" (extract final) volume was taken for the lipids analysis. It is actually 1 mL of 5 mL extract final volume. The lipids should be ½ the reported values due to this discrepancy –the reported 10 mL is being used instead of the actual 5 mL in the calculation.
  This was corrected.

14. Data Analysis and Calculations

14.1. Fish and other biota samples typically require a percent lipid analysis. see Section 12.4. The lipid content is calculated utilizing the below equation:

$$\% \text{ Lipids} = \frac{(\text{Final Weight} - \text{Initial Weight})}{\text{Sample Weight}} \times \frac{[redacted]}{\text{Extracted Volume (1mL)}} \times 100$$

Biota Prep Log

- The "Left/Both fillet" field is not completed for all fish. These should all be left only. There "is an "X" through the "left" for the first 2 fish-note should be added to clarify that this means left only filet.
  The "Left/Both fillet" field has now been completed the fish that were not complete before (by circling "left") and a footnote was added to clarify that it is left only filet for these newly completed fish; however, this footnote should also be applied to clarify that the "X" through the "left" for the first 2 fish also means that it is the left only filet.

This has been corrected.

Other

- Results are reported to 3 significant figures instead of historical 2 significant figures. Is 3 significant figures supported by 5 mL final volume (is it accurate to 5.00?). Does your system have the ability to adjust to 2 significant figures for results?
  Results are 3 sig figs, was this change unable to be implemented?

All 2 sig figs for consistency

- The dilutions being performed are higher than historical data. This appears to be because the dilutions are based on the highest individual peak vs the total area of the

Aroclor. The top of calibration range is 1 ppm for a 10 g sample. Data includes 3-5-fold dilutions for Aroclors just over 1 ppm and 10-fold dilutions for Aroclors under 2 ppm. There appears to be more "J" values than typically observed due to this change. Should discuss. Also, understand that surrogate recoveries are evaluated up to 10-fold dilution (historical used 5-fold for this evaluation). May need AQ to adjust DVM (if possible) due to the number of dilutions over 5 (there was only 1 dilution greater than 5 in 2016 fish at it was a 6-fold dilution).
This was covered in our call on 3/16/18.

- GE Fish sample batch 40148598GE Fish sample batch 40148598 - These would have been reported with peak 20 taken out of A1254 at Schenectady vs A1260 as was done at Pace GB; A1260 "step peaks" are present; peak 21 is greater in height then all A1254 peaks (except 20). This change would only result in very minor changes to Total PCB but would be more consistent with TZ STB historical quantitation. Should discuss.
This was covered in our call on 3/16/18, ongoing guidance with lab.

Lab revised.

Jared K. Acker

From: Tod Noltemeyer <Tod.Noltemeyer@pacelabs.com>
Sent: Thursday, May 31, 2018 5:54 PM
To: Meg Michell
Cc: Jared K. Acker
Subject: Re: FW: SDG 40148598 requests

Our QA group revised the data package which is now available on Paceport. They apologize - this was one of the first sets we went back and forth on while setting up the process and a couple items did not get updated.

Tod

Tod Noltemeyer

Project Manager

Pace Analytical Services, LLC

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Green Bay, WI 54302

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>>> Meg Michell <mmichell@envstd.com> 5/31/2018 2:55 PM >>>
Could you address the following requests for this SDG?
Thanks!!

From: Jared K. Acker
Sent: Thursday, May 31, 2018 9:02 AM
To: Meg Michell <mmichell@envstd.com>
Subject: SDG 40148598 requests

Good morning

Here are my requests for this SDG:

1) The raw data for Laboratory Duplicate Lab ID 1653813 / File ID 030718.B\030718027.D does not match the Form I or Form III results
2) The COC time received was not filled in, can this be confirmed and corrected?

Thanks

Jared Acker
Staff Chemist II
Environmental Standards, Inc.
1140 Valley Forge Road • PO Box 810 • Valley Forge, PA 19482

610.935.5577 x403 • www.envstd.com • jacker@envstd.com

Emergency Response Quality Assurance Hotline: 855.374.7272